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NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

WARTIME REPORT

ORIGINALLY ISSUED

November 1945 as
Advance Restricted Report L5H27

NUMERICAL EVALUATION OF THE WAKE-SURVEY EQUATIONS FOR SUBSONIC FLOW INCLUDING THE EFFECT OF ENERGY ADDITION

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ADVANCE RESTRICTED REPORT

NUMERICAL EVALUATION OF THE WAKE-SURVEY EQUATIONS FOR SUBSONIC FLOW INCLUDING THE EFFECT OF ENERGY ADDITION

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SUMMARY

Direct-reading tables and charts are presented for determining the drag or thrust coefficients from wake-survey measurements in the subsonic speed range. For flows wherein no energy is added, the point drag coefficient is shown to be an explicit function of the stream Mach number M_0, the static-pressure coefficient at the wake station P_1, and the total-pressure-loss coefficient $\Delta H/q_0$, where ΔH is the total-pressure loss and q_0 is the stream dynamic pressure. Values of the point drag coefficient are tabulated for a wide range of values of these parameters. Inasmuch as the tabulated coefficients (either drag or thrust) represent the point values, which are independent of the integration of the wake, the charts or tables in the form presented are general in application.

For flows wherein energy is added, such as flows behind propellers or heated radiators, an additional parameter, which is a function of the stagnation-temperature rise, must be considered. Values of the point drag coefficient that include the effects of the addition of energy are tabulated.

INTRODUCTION

In the field of aeronautical research, wake pressure surveys have been used increasingly for determining profile drag, internal drag, jet thrust, and related factors. The evaluation of the drag or thrust from pressure surveys is based on the solution of the momentum equation. For high-speed flows, in which the air must be considered compressible, the evaluation of the drag or thrust must include the variation in the density of the air; this variation necessarily complicates the solution of the momentum equation. For flows wherein energy has been added, the density variation is of importance even for the low-speed conditions.

Because a large number of pressure readings are usually required to make a complete wake survey, it is essential that solutions of the wake-survey equations for all types of flow be presented in a form to permit rapid and accurate computation. Various simplifying techniques have been developed for evaluation of the drag coefficient from wake pressure measurements by means of charts or tables, but these methods have required excessive interpolation or computation due to the form of the parameters employed. When simplifying assumptions as to the shape of the wake profile and the constancy of the static pressure across the wake are made, integration techniques may be combined with the solution of the wake-survey equations (references 1 and 2) to reduce greatly the required computation. This method has been found useful in determining the section profile-drag coefficients of airfoils; however, such a method is not general in application and is limited by the original assumptions of uniform static pressure and a definite wake profile.

The method found to be most generally applicable at the Langley 8-foot high-speed tunnel consists in the point-by-point evaluation of the drag coefficient by means of direct-reading charts with the final integration performed in a separate step. Facility of evaluation of the drag coefficient is provided in that the point-by-point values can be determined from simple charts. The charts require no assumptions as to wake profiles or pressure gradients. The flexibility required for application to both two- and three-dimensional flows is provided by performing the integration in a separate step. In this report the solution of the wake equations has been developed for both isoenergic flows (constant total energy) and flows wherein energy has been added; thus the equations are generally applicable to flows behind airfoils, propellers, and radiators. The fundamental principles may be applied to the determination of the thrust from jet units; however, consideration must be given to the change in the value of the ratio of specific heats and the momentum of the fuel.

SYMBOLS

a	speed of sound, feet per second
A	area, square feet
A_R	reference area, square feet
C_D	drag coefficient $\left(\frac{D}{q_o A_R}\right)$
c	chord, feet
c_d	section profile-drag coefficient
c_d'	point drag coefficient
c_p	specific heat at constant pressure (for air, 0.24 Btu/lb/°F)
D	drag, pounds
E	energy added, foot-pounds per second
F_c	compressibility factor $\left(\frac{H - p}{q}\right)$
g	acceleration of gravity (32.2 ft/sec^2)
H	total pressure, pounds per square foot
$\frac{\Delta H}{q_o}$	total-pressure-loss coefficient $\left(\frac{H_o - H}{q_o}\right)$
J	mechanical equivalent of heat (778 ft-lb/Btu)
K	energy-input factor $\left(\frac{E}{Jc_p gmT_o}\right)$
M	Mach number $\left(\frac{V}{a}\right)$
m	mass flow rate, slugs per second (ρAV)
p	static pressure, pounds per square foot absolute
P_1	static-pressure coefficient $\left(\frac{p_1 - p_o}{q_o}\right)$

q	dynamic pressure $\left(\frac{1}{2}\rho V^2\right)$
T	static temperature, $^{\circ}$F absolute
T'	stagnation temperature, $^{\circ}$F absolute
$\Delta T'$	stagnation-temperature rise, $^{\circ}$F $\left(T_1' - T_o'\right)$
V	velocity, feet per second
y	distance across wake, feet
ρ	density, slugs per cubic foot
γ	ratio of specific heats (for air, 1.400)

Subscripts o, 1, and 2 refer to the flow stations designated in figure 1.

DISCUSSION OF THEORY AND METHODS

Fundamental Relations

The detailed solutions of the basic wake-survey equations for flows with and without the addition of energy have been presented in reference 3. A theoretical analysis of the basic assumptions required for the solution of the wake-survey equations for isoenergic flows has been presented in reference 4.

The basic form of the drag equation as derived from the momentum relation is

$$D = \int_{\text{wake}} \rho_1 V_1 \left(V_o - V_2\right) dA_1$$

Then

$$C_D = \frac{2}{A_R} \int_{wake} \frac{\rho_1 V_1}{\rho_o V_o^2} \left(V_o - V_2\right) dA_1$$

$$= \frac{2}{A_R} \int_{wake} \frac{\rho_1 V_1}{\rho_o V_o} \left(1 - \frac{V_2}{V_o}\right) dA_1$$

$$= \frac{2}{A_R} \int_{wake} \left(\frac{q_1}{q_o}\right)^{1/2} \left(\frac{\rho_1}{\rho_o}\right)^{1/2} \left(\frac{\rho_o}{\rho_2}\right)^{1/2} \left[\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{\rho_2}{\rho_o}\right)^{1/2} \frac{V_2}{V_o}\right] dA_1$$

$$= \frac{2}{A_R} \int_{wake} \left(\frac{\rho_1}{\rho_2}\right)^{1/2} \left(\frac{q_1}{q_o}\right)^{1/2} \left[\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}\right] dA_1 \qquad (1)$$

With the usual assumption that the total pressure at station 2 (where $p_2 = p_o$) is equal to the total pressure at station 1, the drag coefficient can be evaluated as indicated in the appendix. The numerical solution of equation (1), however, is difficult and requires excessive computation for direct use.

For convenience in presenting and discussing the solution of equation (1) the point drag coefficient is defined as

$$c_d{}' = 2\left(\frac{\rho_1}{\rho_2}\right)^{1/2} \left(\frac{q_1}{q_o}\right)^{1/2} \left[\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}\right] \qquad (2)$$

Negative values of the point drag coefficient indicate that the system is producing thrust.

Isoenergic Flows

Isoenergic flows are found over aerodynamic bodies or through internal-flow systems when no appreciable change in stagnation temperature occurs. An analysis of the terms constituting the point drag coefficient for isoenergic flows indicates that the point drag coefficient is an explicit function of the free-stream Mach number M_o, the static-pressure coefficient in the wake P_1, and the total-pressure-loss coefficient $\Delta H/q_o$. The pressure coefficients used are merely an expression of the measured data in coefficient form. Because the values of these parameters can be easily determined from the test data, their use provides a convenient and direct method for evaluation of the point drag coefficient. An explicit expression for the point drag coefficient in terms of the parameters M_o, P_1, and $\Delta H/q_o$ is complicated; but the coefficient can be easily determined by usual methods for given values of these parameters (see appendix).

Values of the point drag coefficient for a wide range of values of pressure coefficients P_1 and $\Delta H/q_o$ and for given values of stream Mach number M_o are presented in table I. The range of total-pressure-loss coefficients has been extended into the negative region (which indicates a total-pressure increase) to permit evaluation under conditions of low energy input approaching isoenergic flow. The application of table I to flows wherein energy has been added will be discussed in a later section. A large range of positive values of P_1 has been included to permit computation of internal duct flows for which the static-pressure coefficient may approach unity.

Other forms of the parameters and other methods of presentation than those used in table I may be more suitable for certain applications. Instead of Mach number M_o, the pressure ratios $\frac{H_o - p_o}{p_o}$, $\frac{H_o - p_o}{H_o}$, or $\frac{p_o}{H_o}$ may be used; the pressure coefficients P_1 and $\frac{\Delta H}{q_o}$ may be replaced by $\frac{p_1 - p_o}{H_o - p_o}$ and $\frac{H_o - H_1}{H_o - p_o}$, respectively. The two parameters $\frac{p_1 - p_o}{H_o - p_o}$ and $\frac{H_o - H_1}{H_o - p_o}$ have an advantage when they can be determined directly from the measured wake and stream pressures. Tables and charts of the point drag coefficient for isoenergic flow in terms of these two parameters are presented in reference 5 with charts and tables for rapid evaluation by an approximate method.

Flows Wherein Energy Is Added

The fundamental relations expressed in equation (1) are correct for the evaluation of the drag or thrust coefficient for flows wherein energy has been added, such as flows through radiators or propellers. The evaluation of the density ratio ρ_2/ρ_o, however, involves an added parameter that is a function of the energy input. The evaluation of the density ratio ρ_2/ρ_o as developed in appendix B of reference 3 becomes

$$\frac{\rho_2}{\rho_o} = \frac{1 + \frac{\gamma - 1}{2} M_o^2 \frac{q_2}{q_o}}{1 + \frac{\gamma - 1}{2} M_o^2 + \frac{E}{Jc_p gmT_o}}$$

In order to determine the drag coefficient from equation (1) for flow conditions wherein energy has been added, an additional parameter $\frac{E}{Jc_p gmT_o}$ must be determined; this parameter is designated K.

An inspection of the terms constituting the point drag coefficient (equation (2)) indicates that the quantity $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2}$ can be expressed as a function of M_o, P_1, and $\frac{\Delta H}{q_o}$. The last part of equation (2)

$\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ can be expressed as a function of M_o, $\frac{\Delta H}{q_o}$, and K. The two quantities of which the product is the point drag coefficient can therefore be determined independently. Values of the two parts of equation (2) required to evaluate the point drag coefficient for flows wherein energy has been added are presented in tables II and III.

The value of the energy parameter K can be computed directly for flow conditions where the energy input and mass flow are measurable and are uniform across the survey plane. Such a condition might be attained for flow through an efficient radiator installation. For flow conditions as found behind a propeller, however, where the energy input and elemental mass flow are not uniform and are difficult to measure, an evaluation of the energy parameter can better be made by experimental methods.

The energy equation from the free stream to the wake station becomes

$$\frac{V_o^2}{2} + Jc_pgT_o + \frac{E}{m} = \frac{V_1^2}{2} + Jc_pgT_1$$

For stagnation conditions at the free-stream and wake stations, the energy parameter becomes

$$\begin{aligned} K &= \frac{E}{Jc_pgmT_o} \\ &= \frac{T_1' - T_o'}{T_o} \\ &= \frac{\Delta T'}{T_o} \end{aligned}$$

where the prime refers to the stagnation temperature. The energy parameter becomes, then, merely the ratio of the stagnation-temperature rise to the absolute stream static temperature.

Inasmuch as the stagnation-temperature difference $T_1' - T_0'$ is small and must be measured accurately, stagnation-temperature thermocouples or resistance thermometers may be connected and calibrated to read the stagnation-temperature difference directly. The free-stream stagnation-temperature reference may be obtained by installing one of the temperature-measuring elements outside the wake. The determination of the absolute free-stream static temperature does not require great accuracy; therefore, conventional methods may be used.

USE OF TABLES AND CHARTS

The values presented in tables I to III for evaluation of the point drag coefficient are difficult to apply directly because interpolation is required. The tabulated values have therefore been plotted in the form of direct-reading charts.

Isoenergic Flows

Examples of the types of plot found useful for evaluation of the point drag coefficient for isoenergic flow are presented in figure 2 for $M_0 = 0.20$ and 0.70, respectively. A representative cross plot of the tabular data of table I is presented in figure 3. It should be pointed out that the scale of the plots of point drag coefficient presented in this report is too small for accurate work. These plots have been included, however, to indicate the general form of the curves and to provide a basis for more accurate large-scale plots based on the original tabular data.

The charts in their present form are especially applicable for use in high-speed wind tunnels, where tests are usually run at fixed values of stream Mach number, and the value of the static-pressure and total-pressure-loss coefficients can be determined directly from the pressure records and wind-tunnel calibration. For use at values of stream Mach numbers different from those tabulated, the chart for the nearest tabulated Mach number may be used with but small error $\left(\pm 1\frac{1}{2}\text{ percent}\right)$. For greater accuracy at the intermediate Mach numbers a linear interpolation may be assumed (fig. 3).

The presentation of the tabulated results may be changed from that used in figure 2 to fit various conditions. For example, the ratio $\frac{c_d'}{\Delta H/q_o}$ may be plotted instead of c_d' in order to attain greater accuracy on a small-scale plot. For many tests the wake static-pressure coefficient remains essentially constant with changes in M_o; therefore the point drag coefficient may be plotted against $\Delta H/q_o$ for a range of values of M_o at given values of P_1. The use of the tabulated data in this form may be applicable to flight tests.

Flows Wherein Energy Is Added

In figure 4 are presented representative plots of tables II and III for evaluating the point drag coefficient for flows wherein energy is added. This figure shows that an increase in stagnation temperature of the order of 1° F $(K \approx 0.002)$ can produce a significant effect on the evaluation of the drag coefficient at low values of $\Delta H/q_o$. For many cases, however, the energy effect may be considered negligible - as, for example, the flow behind a lightly loaded propeller - and the tabulated results for isoenergic flow (table I) may be used directly. A comparison of the numerical result for the experimental value of K with that for $K = 0$ indicates the magnitude of the energy effect and which form of the equations should be used. The isoenergic values of c_d' presented in table I correspond to the values of c_d' for $K = 0$ presented in tables II and III. Because the solutions of the equations for isoenergic flow can be determined from table I directly in one step, table I should be used whenever the energy effect can be neglected.

It should be pointed out that for flows wherein energy is added, certain combinations of the parameters M_o, P_1, $\frac{\Delta H}{q_o}$, and K specify supersonic flow in the wake. For such flows the measurement of the wake pressures is subject to corrections that are dependent on the intensity of the shock at the local supersonic speed. No attempt has been made in this report to evaluate these shock corrections to the measured pressures.

Integration Techniques

The evaluation of the total-drag coefficient involves the integration of the point-drag-coefficient profile. Inasmuch as the evaluation of c_d' is independent of the integration process, great flexibility in the application of the proposed wake-survey techniques to various types of flow can be attained. The flows behind airfoils, within internal-flow systems, or through propellers may therefore be calculated by similar methods that vary only in the integration technique employed. The wake profile and the manner in which the wake is surveyed will determine the optimum type of integration.

With the values of the point drag coefficient determined from the charts or tables presented in this report, the value of the total-drag coefficient becomes

$$C_D = \frac{1}{A_R} \int_{\text{wake}} c_d' \, dA_1$$

where A_R is the reference area upon which C_D is to be based. The integration technique employed should be determined from considerations of expediency and the accuracy of integration desired.

For two-dimensional flows behind airfoils the airfoil-section drag coefficient becomes

$$c_d = \frac{1}{c} \int_{\text{wake}} c_d' \, dy$$

where the integral represents the area under the c_d'-curve when expressed in the same units as the chord c.

NUMERICAL EXAMPLES

Isoenergic Flow

Assume the following set of conditions, which might correspond to the center of the wake of an airfoil at high speed:

$$M_o = 0.70$$

$$P_1 = 0.12$$

$$\frac{\Delta H}{q_o} = 0.3$$

An interpolation of table I or the use of the large-scale plots of table I (fig. 2(b), for example) gives the value of the point drag coefficient c_d' of 0.1964. The resulting positive value indicates drag.

Flows Wherein Energy Is Added

(1) Assume the following set of conditions, which might correspond to the flow behind a highly loaded propeller for the climb condition:

$$M_o = 0.20$$

$$P_1 = 0.25$$

$$\frac{\Delta H}{q_o} = -0.50$$

(The negative value of $\Delta H/q_o$ indicates total-pressure increase.)

$$\Delta T' = 4.0^\circ$$

$$T_o = 500^\circ \text{ F abs.}$$

From the value of absolute static temperature and stagnation-temperature rise,

$$K = \frac{4.0}{500}$$

$$= 0.008$$

An interpolation of tables II and III or the use of the large-scale plots of tables II and III (fig. 4, for example) gives the following values of the parts of equation (2) that constitute the point drag coefficient:

$$2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2} = 2.2368$$

$$\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2} = -0.2217$$

The value of the point drag coefficient thus becomes

$$c_d' = (2.2368)(-0.2217)$$

$$= -0.4959$$

The resulting negative value indicates thrust.

(2) Assume the following set of conditions, which might correspond to the flow behind a radiator measured near the duct outlet:

$$H = \frac{E}{J}$$

$$= 600 \text{ Btu/sec}$$

$$gm = 30 \text{ lb/sec}$$

$$T_o = 430^\circ \text{ F abs.}$$

$$M_o = 0.7$$

$$\frac{\Delta H}{q_o} = 0.4$$

$$P_1 = 0.1$$

Now

$$K = \frac{E}{Jc_p gmT_o}$$

$$= \frac{600}{0.24 \times 30 \times 430}$$

$$= 0.194$$

From these values of the parameters,

$$2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2} = 1.5503$$

and

$$\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2} = 0.0889$$

The value of the point drag coefficient thus becomes

$$c_d' = 1.5503 \times 0.0889$$

$$= 0.1378$$

The resulting positive value indicates drag.

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APPENDIX

EQUATIONS FOR COMPUTING TABULATED VALUES OF DRAG COEFFICIENT

The various terms of the drag-coefficient equation (equation (1)) can be expressed by the following relations. It should be pointed out that by definition $p_2 = p_o$ and by assumption $H_1 = H_2$. (A detailed derivation of the following terms can be found in appendix B of reference 3.)

$$\left(\frac{\rho_1}{\rho_2}\right)^{1/2} = \left(\frac{p_1}{p_o}\right)^{1/2\gamma}$$

$$\left(\frac{q_1}{q_o}\right)^{1/2} = \left(\frac{H_1 - p_1}{H_o - p_o}\right)^{1/2}\left(\frac{F_{c_o}}{F_{c_1}}\right)^{1/2}$$

$$\left(\frac{q_2}{q_o}\right)^{1/2} = \left(\frac{H_1 - p_o}{H_o - p_o}\right)^{1/2}\left(\frac{F_{c_o}}{F_{c_2}}\right)^{1/2}$$

$$\left(\frac{\rho_2}{\rho_o}\right)^{1/2} = \left(\frac{1 + \frac{\gamma - 1}{2}M_o^2 \frac{q_2}{q_o}}{1 + \frac{\gamma - 1}{2}M_o^2 + K}\right)^{1/2}$$

Where K is the energy-input factor. (For isoenergic flow $K = 0$.)

For the use of the equations in the foregoing form, some initial value of one of the pressures must be assumed. Because the values of the various parts of equation (2) are determined fundamentally by the pressure ratio, the numerical value of a pressure has no significance; therefore any positive value may be used.

The detailed computing procedure is as follows:

(1) Given M_o and a range of values of P_1 and $\Delta H/q_o$. (The value of K must also be considered for flows wherein energy is added.)

(2) In order to determine the free-stream pressures corresponding to M_o, assume any convenient value of stream static pressure p_o (1000 lb/sq ft is assumed here) and use the following relations:

$$q_o = \frac{\gamma}{2} p_o M_o^{\,2}$$

$$H_o = p_o + F_{c_o} q_o$$

where $\gamma = 1.400$ and F_{c_o} is obtained from table IV for the value of M_o. The value of H_o can also be determined for given values of M_o and p_o from the following equation:

$$M^2 = \frac{2}{\gamma - 1}\left[\left(\frac{H}{p}\right)^{\frac{\gamma-1}{\gamma}} - 1\right]$$

(3) The step-by-step computing procedure is as follows:

Column	Relation
(1)	$\Delta H = \frac{\Delta H}{q_o} q_o$
(2)	$\Delta p = P_1 q_o$
(3)	$p_1 = p_o + \Delta p = p_o + (2)$
(4)	$H_1 = H_2 = H_o - \Delta H = H_o - (1)$
(5)	$H_1 - p_1 = (4) - (3)$
(6)	$\frac{H_1 - p_1}{p_1} = \frac{(5)}{(3)}$
(7)	F_{c_1} from a plot of table IV for value of (6)
(8)	$H_2 - p_2 = (4) - p_o$
(9)	$\frac{H_2 - p_2}{p_2} = \frac{(8)}{p_o}$
(10)	F_{c_2} from a plot of table IV for a value of (9)
(11)	$\frac{q_2}{q_o} = \frac{1}{q_o} \frac{H_2 - p_2}{F_{c_2}} = \frac{1}{q_o} \frac{(8)}{(10)}$
(12)	$\left(\frac{q_2}{q_o}\right)^{1/2} = (11)^{1/2}$
(13)	$\frac{q_1}{q_o} = \frac{1}{q_o} \frac{H_1 - p_1}{F_{c_1}} = \frac{1}{q_o} \frac{(5)}{(7)}$
(14)	$\left(\frac{q_1}{q_o}\right)^{1/2} = (13)^{1/2}$

Column	Relation
(15)	$\left(\frac{p_1}{p_o}\right)^{1/2\gamma} = \left(\frac{(3)}{p_o}\right)^{0.357}$
(16)	$\frac{\rho_2}{\rho_o} = \frac{1 + \frac{\gamma - 1}{2}M_o^2 \frac{q_2}{q_o}}{1 + \frac{\gamma - 1}{2}M_o^2 + K}$ $= \frac{1 + 0.2M_o^2 \ (11)}{1 + 0.2M_o^2 + K}$ For isoenergic flow, $K = 0$
(17)	$\left(\frac{\rho_2}{\rho_o}\right)^{1/2} = (16)^{1/2}$
(18)	$\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2} = (17) - (12)$
(19)	$c_d' = 2\left(\frac{p_1}{p_o}\right)^{1/2\gamma}\left(\frac{q_1}{q_o}\right)^{1/2}\left[\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}\right]$ $= 2 \times (15) \times (14) \times (18)$

(4) The numerical solutions of the various steps of the computing equationsare given for the following examples:

M_0	0.70	0.2	0.70
P_1	0.12	0.25	0.1
$\Delta H/q_0$	0.3	-0.5	0.4
K	---------	0.008	0.194
p_0	1000	1000	1000
q_0	343	28	343
H_0	1387.084	1028.28	1387.084
(1)	102.9	-14	137.2
(2)	41.16	7	34.3
(3)	1041.16	1007	1034.3
(4)	1284.184	1042.28	1249.884
(5)	243.024	35.28	215.584
(6)	0.2334	0.0350	0.2084
(7)	1.0796	1.0124	1.07138
(8)	284.184	42.28	249.884
(9)	0.2842	0.0423	0.2499
(10)	1.0960	1.0150	1.08494
(11)	0.7560	1.4877	0.6715
(12)	0.8695	1.2197	0.8194
(13)	0.6563	1.2446	0.5867
(14)	0.8101	1.1156	0.7659
(15)	1.0145	1.0025	1.0121
(16)	0.9782	0.9960	0.8249
(17)	0.9890	0.9980	0.9083
(18)	0.1195	-0.2217	0.0889
(19)	0.1964	-0.4959	0.1378

Any arbitrary value of p_0 may be assumed without change in the final result. For these examples $p_0 = 1000$ has been used.

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TABLE I

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW

$[M_0 = 0]$

$\frac{\Delta H}{q_0}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.9250	0.8914	0.8564	0.8200	0.7818	0.7416	0.6992	0.6540	0.6056	0.5528	0.4944	0.4282	0.3496	0.2472
.700	.8090	.7834	.7568	.7292	.7008	.6708	.6396	.6068	.5722	.5352	.4954	.4524	.4046	.3504
.600	.6972	.6776	.6574	.6366	.6150	.5926	.5694	.5450	.5198	.4930	.4648	.4348	.4026	.3676
.500	.5858	.5710	.5558	.5402	.5240	.5074	.4902	.4722	.4538	.4344	.4142	.3930	.3706	.3466
.400	.4728	.4620	.4508	.4394	.4276	.4156	.4032	.3904	.3772	.3634	.3492	.3344	.3188	.3024
.300	.3578	.3502	.3426	.3348	.3266	.3184	.3098	.3012	.2922	.2828	.2732	.2634	.2530	.2422
.250	.2996	.2936	.2874	.2810	.2746	.2680	.2612	.2542	.2470	.2396	.2320	.2242	.2160	.2076
.200	.2408	.2362	.2314	.2264	.2216	.2164	.2112	.2058	.2004	.1948	.1888	.1828	.1768	.1702
.150	.1812	.1778	.1744	.1708	.1672	.1636	.1598	.1560	.1420	.1480	.1438	.1396	.1350	.1306
.100	.1214	.1192	.1170	.1148	.1124	.1100	.1076	.1052	.1026	.1000	.0974	.0946	.0918	.0888
.075	.0912	.0896	.0880	.0862	.0846	.0828	.0810	.0792	.0774	.0754	.0734	.0714	.0694	.0672
.050	.0610	.0598	.0588	.0576	.0566	.0554	.0542	.0530	.0518	.0506	.0494	.0480	.0466	.0452
.025	.0306	.0300	.0296	.0290	.0284	.0278	.0274	.0268	.0262	.0256	.0248	.0242	.0236	.0228
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0306	-.0302	-.0296	-.0290	-.0286	-.0280	-.0274	-.0268	-.0264	-.0258	-.0252	-.0244	-.0238	-.0232
-.050	-.0616	-.0606	-.0594	-.0584	-.0574	-.0564	-.0552	-.0542	-.0530	-.0518	-.0506	-.0494	-.0482	-.0468
-.075	-.0924	-.0908	-.0894	-.0878	-.0864	-.0848	-.0832	-.0814	-.0798	-.0780	-.0764	-.0746	-.0726	-.0708
-.100	-.1234	-.1216	-.1196	-.1176	-.1154	-.1134	-.1112	-.1092	-.1070	-.1046	-.1024	-.1000	-.0976	-.0952
-.150	-.1858	-.1830	-.1800	-.1770	-.1742	-.1710	-.1680	-.1648	-.1616	-.1584	-.1550	-.1516	-.1482	-.1446
-.200	-.2488	-.2450	-.2412	-.2376	-.2336	-.2298	-.2258	-.2216	-.2176	-.2134	-.2090	-.2046	-.2002	-.1956
-.250	-.3122	-.3076	-.3032	-.2986	-.2938	-.2890	-.2842	-.2792	-.2742	-.2690	-.2638	-.2586	-.2530	-.2476
-.300	-.3762	-.3710	-.3656	-.3602	-.3546	-.3490	-.3434	-.3376	-.3318	-.3258	-.3198	-.3134	-.3072	-.3008
-.400	-.5050	-.4984	-.4916	-.4848	-.4778	-.4706	-.4634	-.4562	-.4488	-.4412	-.4336	-.4258	-.4178	-.4096
-.500	-.6356	-.6276	-.6194	-.6112	-.6030	-.5946	-.5860	-.5772	-.5664	-.5596	-.5504	-.5412	-.5318	-.5222
-.600	-.7678	-.7586	-.7492	-.7398	-.7302	-.7206	-.7108	-.7008	-.6908	-.6806	-.6702	-.6596	-.6488	-.6380
-.700	-.9012	-.8910	-.8804	-.8700	-.8592	-.8484	-.8376	-.8264	-.8152	-.8038	-.7922	-.7804	-.7686	-.7564
-.800	-1.0362	-1.0248	-1.0134	-1.0018	-.9900	-.9782	-.9662	-.9540	-.9418	-.9292	-.9166	-.9038	-.1908	-.8776

$\frac{\Delta H}{q_0}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	------	------	------	------	------	------	------	------	------	------	------	------	------
.700	0.2860	0.2022	------	------	------	------	------	------	------	------	------	------	------
.600	.3286	.2846	0.2324	0.1644	------	------	------	------	------	------	------	------	------
.500	.3208	.2930	.2620	.2268	0.1852	0.1310	------	------	------	------	------	------	------
.400	.2852	.2666	.2470	.2254	.2016	.1746	0.1426	0.1008	------	------	------	------	------
.300	.2310	.2190	.2066	.1932	.1788	.1634	.1460	.1264	0.1032	0.0730	------	------	------
.250	.1988	.1896	.1798	.1696	.1586	.1468	.1340	.1198	.1038	.0848	0.0600	0	------
.200	.1636	.1566	.1494	.1416	.1336	.1258	.1156	.1056	.0944	.0818	.0668	.0472	0
.150	.1258	.1208	.1156	.1104	.1046	.0986	.0922	.0854	.0780	.0698	.0604	.0494	.0348
.100	.0858	.0828	.0794	.0760	.0726	.0688	.0648	.0606	.0562	.0514	.0458	.0398	.0324
.075	.0650	.0628	.0604	.0580	.0554	.0526	.0498	.0468	.0436	.0400	.0362	.0320	.0270
.050	.0438	.0424	.0408	.0392	.0376	.0358	.0340	.0320	.0300	.0278	.0254	.0226	.0196
.025	.0222	.0214	.0208	.0200	.0192	.0182	.0174	.0164	.0154	.0144	.0132	.0118	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0226	-.0218	-.0212	-.0204	-.0196	-.0188	-.0180	-.0170	-.0162	-.0152	-.0142	-.0130	-.0118
-.050	-.0456	-.0442	-.0428	-.0414	-.0398	-.0382	-.0366	-.0350	-.0332	-.0312	-.0292	-.0270	-.0248
-.075	-.0688	-.0668	-.0648	-.0626	-.0604	-.0582	-.0558	-.0534	-.0506	-.0480	-.0450	-.0420	-.0386
-.100	-.0926	-.0900	-.0872	-.0846	-.0816	-.0786	-.0756	-.0724	-.0690	-.0654	-.0618	-.0578	-.0534
-.150	-.1410	-.1372	-.1334	-.1294	-.1252	-.1210	-.1166	-.1120	-.1072	-.1022	-.0970	-.0914	-.0856
-.200	-.1908	-.1860	-.1810	-.1760	-.1706	-.1652	-.1596	-.1538	-.1478	-.1414	-.1350	-.1280	-.1206
-.250	-.2418	-.2360	-.2300	-.2238	-.2176	-.2110	-.2044	-.1974	-.1902	-.1828	-.1750	-.1668	-.1584
-.300	-.2940	-.2874	-.2804	-.2734	-.2660	-.2586	-.2508	-.2428	-.2346	-.2260	-.2172	-.2080	-.1982
-.400	-.4014	-.3930	-.3842	-.3756	-.3664	-.3572	-.3476	-.3378	-.3278	-.3174	-.3066	-.2954	-.2838
-.500	-.5124	-.5024	-.4922	-.4820	-.4714	-.4606	-.4494	-.4380	-.4264	-.4144	-.4020	-.3892	-.3760
-.600	-.6268	-.6156	-.6040	-.5924	-.6802	-.5682	-.5556	-.5430	-.5298	-.5164	-.5026	-.4884	-.4738
-.700	-.7442	-.7316	-.7190	-.7060	-.6928	-.6792	-.6656	-.6516	-.6372	-.6224	-.6076	-.5922	-.5764
-.800	-.8640	-.8506	-.8366	-.8228	-.8084	-.7938	-.7790	-.7638	-.7484	-.7326	-.7166	-.7000	-.6832

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.05]$

P_1 $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.9234	0.8900	0.8552	0.8186	0.7808	0.7408	0.6986	0.6534	0.6052	0.5526	0.4944	0.4284	0.3502	0.2482
.700	.8074	.7818	.7554	.7280	.6996	.6698	.6388	.6060	.5714	.5346	.4952	.4520	.4044	.3504
.600	.6960	.6764	.6562	.6354	.6140	.5918	.5686	.5444	.5192	.4926	.4644	.4346	.4024	.3674
.500	.5842	.5694	.5542	.5388	.5226	.5060	.4890	.4712	.4528	.4336	.4134	.3922	.3698	.3460
.400	.4718	.4610	.4498	.4386	.4268	.4148	.4024	.3898	.3766	.3630	.3488	.3340	.3184	.3020
.300	.3574	.3498	.3422	.3344	.3262	.3180	.3096	.3010	.2920	.2826	.2732	.2632	.2530	.2422
.250	.2990	.2930	.2868	.2806	.2742	.2676	.2608	.2538	.2466	.2392	.2316	.2238	.2158	.2074
.200	.2404	.2358	.2310	.2262	.2212	.2162	.2110	.2056	.2002	.1946	.1888	.1828	.1766	.1702
.150	.1806	.1774	.1738	.1704	.1668	.1632	.1594	.1556	.1516	.1476	.1434	.1392	.1348	.1302
.100	.1214	.1192	.1170	.1146	.1124	.1100	.1076	.1052	.1026	.1000	.0974	.0946	.0918	.0888
.075	.0912	.0896	.0878	.0862	.0846	.0828	.0810	.0792	.0774	.0754	.0734	.0714	.0694	.0672
.050	.0608	.0598	.0588	.0576	.0566	.0554	.0542	.0530	.0518	.0506	.0494	.0480	.0466	.0452
.025	.0306	.0300	.0296	.0296	.0284	.0278	.0274	.0268	.0262	.0256	.0248	.0242	.0236	.0228
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0306	-.0302	-.0296	-.0290	-.0286	-.0280	-.0274	-.0268	-.0262	-.0258	-.0252	-.0244	-.0238	-.0232
-.050	-.0614	-.0604	-.0594	-.0584	-.0574	-.0562	-.0552	-.0540	-.0530	-.0518	-.0506	-.0494	-.0482	-.0468
-.075	-.0924	-.0908	-.0894	-.0878	-.0862	-.0846	-.0830	-.0814	-.0798	-.0780	-.0762	-.0744	-.0726	-.0708
-.100	-.1234	-.1214	-.1194	-.1174	-.1154	-.1134	-.1112	-.1090	-.1070	-.1046	-.1024	-.1000	-.0976	-.0952
-.150	-.1860	-.1830	-.1802	-.1772	-.1742	-.1712	-.1682	-.1650	-.1618	-.1586	-.1552	-.1518	-.1484	-.1448
-.200	-.2484	-.2446	-.2410	-.2372	-.2334	-.2294	-.2254	-.2214	-.2172	-.2130	-.2088	-.2044	-.2000	-.1954
-.250	-.3120	-.3074	-.3030	-.2984	-.2936	-.2888	-.2840	-.2790	-.2740	-.2690	-.2638	-.2584	-.2530	-.2474
-.300	-.3748	-.3696	-.3644	-.3590	-.3534	-.3480	-.3424	-.3366	-.3308	-.3248	-.3188	-.3126	-.3062	-.2998
-.400	-.5036	-.4970	-.4902	-.4854	-.4764	-.4694	-.4622	-.4550	-.4476	-.4400	-.4324	-.4248	-.4168	-.4088
-.500	-.6340	-.6260	-.6180	-.6098	-.6016	-.5932	-.5846	-.5760	-.5672	-.5584	-.5492	-.5400	-.5306	-.5212
-.600	-.7656	-.7566	-.7474	-.7380	-.7284	-.7188	-.7090	-.6992	-.6892	-.6790	-.6686	-.6582	-.6476	-.6366
-.700	-.8990	-.8888	-.8784	-.8680	-.8574	-.8466	-.8356	-.8246	-.8134	-.8022	-.7906	-.7790	-.7670	-.7550
-.800	-1.0330	-1.0218	-1.0104	-.9990	-.9874	-.9756	-.9636	-.9516	-.9394	-.9270	-.9144	-.9016	-.8888	-.8756

P_1 $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	------	------	------	------	------	------	------	------	------	------	------	------	------
.700	0.2864	------	------	------	------	------	------	------	------	------	------	------	------
.600	.3288	0.2848	0.2328	0.1650	------	------	------	------	------	------	------	------	------
.500	.3204	.2926	.2618	.2268	0.1854	0	------	------	------	------	------	------	------
.400	.2848	.2664	.2468	.2254	.2016	.1746	0.1428	0.1012	------	------	------	------	------
.300	.2310	.2192	.2066	.1934	.1790	.1634	.1462	.1268	0.1036	0.0734	------	------	------
.250	.1984	.1892	.1796	.1694	.1584	.1466	.1340	.1198	.1038	.0848	0.0602	------	------
.200	.1636	.1566	.1494	.1416	.1336	.1250	.1158	.1056	.0946	.0820	.0670	0.0474	------
.150	.1254	.1206	.1154	.1100	.1044	.0984	.0920	.0852	.0778	.0696	.0604	.0494	0.0350
.100	.0858	.0828	.0796	.0762	.0726	.0688	.0650	.0608	.0562	.0514	.0460	.0398	.0326
.075	.0650	.0628	.0604	.0580	.0554	.0526	.0498	.0468	.0436	.0400	.0362	.0320	.0270
.050	.0438	.0424	.0408	.0392	.0376	.0358	.0340	.0320	.0300	.0278	.0254	.0226	.0196
.025	.0222	.0214	.0208	.0200	.0192	.0182	.0174	.0164	.0154	.0144	.0132	.0120	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0226	-.0218	-.0212	-.0204	-.0196	-.0188	-.0180	-.0170	-.0162	-.0152	-.0142	-.0130	-.0118
-.050	-.0456	-.0442	-.0428	-.0414	-.0298	-.0382	-.0366	-.0350	-.0332	-.0312	-.0292	-.0270	-.0248
-.075	-.0688	-.0668	-.0648	-.0626	-.0604	-.0582	-.0558	-.0534	-.0508	-.0480	-.0450	-.0420	-.0386
-.100	-.0926	-.0900	-.0874	-.0846	-.0816	-.0788	-.0756	-.0724	-.0690	-.0656	-.0618	-.0578	-.0536
-.150	-.1410	-.1374	-.1334	-.1294	-.1254	-.1212	-.1168	-.1122	-.1074	-.1024	-.0972	-.0916	-.0856
-.200	-.1906	-.1858	-.1808	-.1758	-.1706	-.1652	-.1596	-.1538	-.1478	-.1414	-.1350	-.1280	-.1206
-.250	-.2418	-.2360	-.2300	-.2238	-.2176	-.2110	-.2044	-.1974	-.1902	-.1828	-.1752	-.1670	-.1584
-.300	-.2932	-.2866	-.2796	-.2726	-.2654	-.2578	-.2502	-.2422	-.2340	-.2256	-.2168	-.2076	-.1980
-.400	-.4006	-.3920	-.3836	-.3748	-.3656	-.3564	-.3470	-.3372	-.3272	-.3168	-.3060	-.2950	-.2834
-.500	-.5114	-.5016	-.4914	-.4812	-.4706	-.4598	-.4488	-.4374	-.4258	-.4138	-.4014	-.3888	-.3756
-.600	-.6256	-.6144	-.6030	-.5912	-.5794	-.5672	-.5548	-.5420	-.5290	-.5156	-.5018	-.4878	-.4732
-.700	-.7428	-.7304	-.7176	-.7048	-.6916	-.6784	-.6646	-.6506	-.6364	-.6218	-.6068	-.5916	-.5758
-.800	-.8622	-.8488	-.8350	-.8210	-.8068	-.7922	-.7776	-.7624	-.7472	-.7314	-.7154	-.6990	-.6822

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_0 = 0.10]$

P_1 / $\frac{\Delta H}{q_0}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.9188	0.8858	0.8514	0.8154	0.7776	0.7382	0.6962	0.6518	0.6038	0.5518	0.4942	0.4290	0.3518	0.2518
.700	.8036	.7782	.7520	.7250	.6968	.6674	.6366	.6042	.5700	.5334	.4942	.4518	.4046	.3512
.600	.6924	.6730	.6532	.6326	.6114	.5894	.5664	.5424	.5174	.4912	.4632	.4336	.4018	.3672
.500	.5814	.5668	.5518	.5364	.5206	.5042	.4872	.4698	.4514	.4324	.4124	.3914	.3692	.3456
.400	.4692	.4586	.4476	.4364	.4248	.4130	.4008	.3882	.3750	.3616	.3476	.3328	.3174	.3014
.300	.3550	.3476	.3400	.3322	.3244	.3162	.3078	.2992	.2904	.2812	.2718	.2620	.2518	.2412
.250	.2968	.2910	.2848	.2786	.2724	.2658	.2592	.2524	.2452	.2380	.2306	.2228	.2148	.2064
.200	.2388	.2342	.2294	.2248	.2198	.2148	.2096	.2044	.1990	.1934	.1878	.1818	.1758	.1694
.150	.1798	.1764	.1730	.1696	.1660	.1624	.1588	.1550	.1510	.1470	.1430	.1388	.1344	.1298
.100	.1204	.1182	.1162	.1138	.1116	.1092	.1070	.1044	.1020	.0994	.0968	.0940	.0914	.0884
.075	.0906	.0890	.0874	.0856	.0840	.0822	.0806	.0788	.0770	.0750	.0732	.0712	.0690	.0670
.050	.0606	.0596	.0584	.0574	.0562	.0552	.0540	.0528	.0516	.0504	.0492	.0478	.0464	.0452
.025	.0302	.0298	.0292	.0288	.0282	.0276	.0270	.0266	.0260	.0254	.0246	.0240	.0234	.0228
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0304	-.0298	-.0294	-.0288	-.0282	-.0278	-.0272	-.0266	-.0260	-.0254	-.0250	-.0242	-.0236	-.0230
-.050	-.0612	-.0602	-.0592	-.0582	-.0570	-.0560	-.0550	-.0538	-.0528	-.0516	-.0504	-.0492	-.0480	-.0468
-.075	-.0916	-.0902	-.0888	-.0872	-.0856	-.0842	-.0826	-.0810	-.0792	-.0776	-.0758	-.0742	-.0722	-.0704
-.100	-.1224	-.1204	-.1186	-.1166	-.1146	-.1126	-.1104	-.1084	-.1062	-.1040	-.1018	-.0994	-.0970	-.0946
-.150	-.1842	-.1814	-.1786	-.1758	-.1728	-.1700	-.1668	-.1638	-.1606	-.1574	-.1542	-.1508	-.1474	-.1438
-.200	-.2462	-.2428	-.2390	-.2354	-.2316	-.2278	-.2238	-.2198	-.2158	-.2116	-.2074	-.2030	-.1986	-.1942
-.250	-.3092	-.3048	-.3004	-.2960	-.2912	-.2866	-.2818	-.2770	-.2720	-.2670	-.2620	-.2566	-.2514	-.2458
-.300	-.3722	-.3670	-.3618	-.3566	-.3512	-.3458	-.3402	-.3346	-.3288	-.3230	-.3170	-.3108	-.3046	-.2984
-.400	-.4996	-.4932	-.4866	-.4798	-.4730	-.4662	-.4592	-.4520	-.4448	-.4374	-.4298	-.4222	-.4144	-.4064
-.500	-.6288	-.6210	-.6130	-.6050	-.5970	-.5888	-.5804	-.5720	-.5634	-.5546	-.5456	-.5366	-.5274	-.5180
-.600	-.7592	-.7502	-.7412	-.7320	-.7228	-.7132	-.7038	-.6940	-.6842	-.6742	-.6640	-.6538	-.6432	-.6326
-.700	-.8910	-.8810	-.8708	-.8606	-.8502	-.8398	-.8290	-.8182	-.8074	-.7962	-.7850	-.7734	-.7618	-.7500
-.800	-1.0240	-1.0130	-1.0018	-.9906	-.9792	-.9676	-.9560	-.9442	-.9322	-.9200	-.9078	-.8952	-.8826	-.8696

P_1 / $\frac{\Delta H}{q_0}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.0550	------	------	------	------	------	------	------	------	------	------	------	------
.700	.2880	0.2060	0.0450	------	------	------	------	------	------	------	------	------	------
.600	.3288	.2854	.2342	0.1676	0.0366	------	------	------	------	------	------	------	------
.500	.3202	.2926	.2622	.2274	.1866	0.1336	0.0292	------	------	------	------	------	------
.400	.2842	.2660	.2464	.2252	.2018	.1750	.1436	0.1028	0.0224	------	------	------	------
.300	.2300	.2184	.2060	.1928	.1786	.1632	.1462	.1270	.1040	0.0744	0.0162	------	------
.250	.1976	.1886	.1790	.1688	.1580	.1464	.1338	.1198	.1040	.0854	.0610	0	------
.200	.1628	.1560	.1488	.1412	.1332	.1246	.1154	.1056	.0946	.0820	.0672	.0482	.0106
.150	.1252	.1202	.1152	.1098	.1044	.0984	.0922	.0854	.0780	.0698	.0606	.0498	.0356
.100	.0854	.0824	.0792	.0758	.0724	.0686	.0648	.0606	.0562	.0514	.0460	.0398	.0328
.075	.0648	.0626	.0602	.0578	.0552	.0526	.0498	.0468	.0436	.0400	.0364	.0320	.0272
.050	.0438	.0422	.0408	.0392	.0374	.0358	.0340	.0320	.0300	.0278	.0254	.0228	.0198
.025	.0220	.0214	.0206	.0198	.0190	.0182	.0172	.0164	.0154	.0144	.0132	.0120	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0224	-.0216	-.0210	-.0202	-.0194	-.0188	-.0178	-.0170	-.0162	-.0152	-.0140	-.0130	-.0118
-.050	-.0454	-.0440	-.0426	-.0412	-.0398	-.0382	-.0366	-.0350	-.0332	-.0312	-.0292	-.0270	-.0248
-.075	-.0686	-.0666	-.0646	-.0624	-.0602	-.0580	-.0556	-.0532	-.0506	-.0480	-.0450	-.0420	-.0386
-.100	-.0920	-.0896	-.0868	-.0842	-.0814	-.0784	-.0754	-.0722	-.0688	-.0654	-.0616	-.0576	-.0534
-.150	-.1402	-.1366	-.1328	-.1288	-.1248	-.1206	-.1162	-.1116	-.1070	-.1020	-.0968	-.0914	-.0856
-.200	-.1894	-.1848	-.1798	-.1748	-.1696	-.1644	-.1588	-.1530	-.1472	-.1410	-.1344	-.1276	-.1204
-.250	-.2402	-.2346	-.2286	-.2226	-.2164	-.2100	-.2034	-.1966	-.1894	-.1820	-.1744	-.1664	-.1578
-.300	-.2918	-.2852	-.2784	-.2714	-.2642	-.2568	-.2492	-.2414	-.2334	-.2250	-.2162	-.2070	-.1974
-.400	-.3984	-.3900	-.3816	-.3728	-.3640	-.3548	-.3454	-.3358	-.3258	-.3156	-.3050	-.2940	-.2826
-.500	-.5084	-.4986	-.4886	-.4786	-.4682	-.4574	-.4466	-.4354	-.4238	-.4120	-.3998	-.3872	-.3742
-.600	-.6216	-.6106	-.5994	-.5878	-.5760	-.5640	-.5518	-.5392	-.5264	-.5132	-.4996	-.4856	-.4714
-.700	-.7378	-.7256	-.7132	-.7004	-.6876	-.6744	-.6608	-.6472	-.6330	-.6186	-.6038	-.5888	-.5732
-.800	-.8566	-.8432	-.8296	-.8158	-.8018	-.7876	-.7730	-.7582	-.7430	-.7276	-.7118	-.6956	-.6790

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.15]$

$\Delta H/q_o$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.9112	0.8788	0.8450	0.8096	0.7726	0.7338	0.6926	0.6488	0.6018	0.5506	0.4940	0.4300	0.3544	0.2572
.700	.7966	.7718	.7462	.7194	.6918	.6628	.6328	.6010	.5672	.5312	.4928	.4508	.4044	.3520
.600	.6860	.6672	.6476	.6274	.6066	.5850	.5624	.5390	.5144	.4884	.4612	.4318	.4006	.3666
.500	.5760	.5616	.5470	.5320	.5164	.5004	.4836	.4664	.4484	.4298	.4102	.3896	.3676	.3444
.400	.4646	.4542	.4434	.4324	.4212	.4096	.3976	.3852	.3724	.3590	.3452	.3308	.3158	.2998
.300	.3514	.3442	.3368	.3292	.3214	.3134	.3054	.2970	.2882	.2792	.2700	.2604	.2504	.2398
.250	.2938	.2880	.2820	.2760	.2698	.2634	.2568	.2502	.2432	.2362	.2288	.2212	.2134	.2052
.200	.2362	.2316	.2272	.2224	.2176	.2128	.2078	.2026	.1974	.1918	.1862	.1804	.1744	.1682
.150	.1776	.1744	.1712	.1678	.1644	.1608	.1572	.1534	.1496	.1458	.1418	.1376	.1334	.1288
.100	.1192	.1170	.1150	.1128	.1106	.1082	.1060	.1036	.1012	.0986	.0960	.0934	.0906	.0878
.075	.0894	.0878	.0862	.0846	.0830	.0814	.0796	.0778	.0760	.0742	.0724	.0704	.0684	.0664
.050	.0596	.0586	.0576	.0566	.0556	.0544	.0534	.0522	.0510	.0498	.0486	.0472	.0480	.0446
.025	.0300	.0294	.0290	.0284	.0280	.0274	.0268	.0262	.0256	.0250	.0244	.0238	.0232	.0226
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0300	-.0294	-.0290	-.0286	-.0280	-.0274	-.0270	-.0264	-.0258	-.0252	-.0248	-.0242	-.0234	-.0228
-.050	-.0602	-.0592	-.0582	-.0572	-.0562	-.0552	-.0542	-.0532	-.0520	-.0510	-.0498	-.0486	-.0474	-.0462
-.075	-.0906	-.0892	-.0878	-.0864	-.0848	-.0834	-.0818	-.0802	-.0786	-.0770	-.0752	-.0736	-.0718	-.0700
-.100	-.1220	-.1200	-.1182	-.1164	-.1144	-.1124	-.1102	-.1082	-.1060	-.1040	-.1016	-.0894	-.0970	-.0946
-.150	-.1818	-.1792	-.1764	-.1736	-.1708	-.1680	-.1650	-.1620	-.1590	-.1558	-.1526	-.1494	-.1460	-.1426
-.200	-.2434	-.2400	-.2364	-.2328	-.2290	-.2254	-.2216	-.2176	-.2136	-.2096	-.2056	-.2012	-.1970	-.1926
-.250	-.3054	-.3010	-.2968	-.2924	-.2878	-.2834	-.2788	-.2740	-.2692	-.2644	-.2592	-.2542	-.2490	-.2436
-.300	-.3678	-.3628	-.3576	-.3526	-.3474	-.3420	-.3366	-.3312	-.3256	-.3198	-.3140	-.3080	-.3020	-.2958
-.400	-.4930	-.4866	-.4802	-.4738	-.4672	-.4604	-.4536	-.4466	-.4396	-.4324	-.4252	-.4176	-.4100	-.4024
-.500	-.6198	-.6124	-.6048	-.5970	-.5892	-.5812	-.5732	-.5650	-.5564	-.5480	-.5394	-.5306	-.5216	-.5124
-.600	-.7486	-.7400	-.7312	-.7224	-.7134	-.7042	-.6950	-.6856	-.6760	-.6664	-.6564	-.6464	-.6362	-.6258
-.700	-.8782	-.8686	-.8588	-.8488	-.8388	-.8286	-.8184	-.8078	-.7972	-.7864	-.7754	-.7644	-.7530	-.7416
-.800	-1.0088	-.9984	-.9876	-.9768	-.9658	-.9546	-.9434	-.9320	-.9204	-.9084	-.8966	-.8844	-.8722	-.8596

$\Delta H/q_o$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.0816	------	------	------	------	------	------	------	------	------	------	------	------
.700	.2902	0.2106	0.0668	------	------	------	------	------	------	------	------	------	------
.600	.3288	.2862	.2360	0.1712	0.0544	------	------	------	------	------	------	------	------
.500	.3194	.2924	.2622	.2282	.1882	0.1366	0.0434	------	------	------	------	------	------
.400	.2830	.2650	.2460	.2250	.2018	.1756	.1448	0.1052	0.0334	------	------	------	------
.300	.2290	.2174	.2052	.1922	.1782	.1632	.1464	.1274	.1050	0.0762	0.0242	------	------
.250	.1966	.1876	.1782	.1682	.1576	.1460	.1336	.1200	.1044	.0860	.0624	0.0198	------
.200	.1618	.1550	.1480	.1406	.1326	.1242	.1152	.1054	.0946	.0824	.0678	.0492	0.0156
.150	.1242	.1196	.1146	.1092	.1038	.0980	.0918	.0852	.0778	.0698	.0608	.0502	.0364
.100	.0850	.0820	.0788	.0754	.0718	.0684	.0646	.0604	.0560	.0514	.0460	.0400	.0330
.075	.0642	.0620	.0598	.0574	.0548	.0522	.0494	.0464	.0434	.0400	.0362	.0320	.0272
.050	.0432	.0418	.0404	.0388	.0372	.0354	.0338	.0318	.0298	.0276	.0252	.0226	.0198
.025	.0218	.0212	.0204	.0196	.0190	.0180	.0172	.0164	.0154	.0142	.0132	.0120	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0222	-.0216	-.0208	-.0202	-.0194	-.0186	-.0178	-.0170	-.0160	-.0150	-.0140	-.0130	-.0118
-.050	-.0448	-.0436	-.0422	-.0408	-.0394	-.0378	-.0362	-.0346	-.0328	-.0310	-.0290	-.0270	-.0246
-.075	-.0680	-.0662	-.0642	-.0620	-.0600	-.0576	-.0554	-.0530	-.0504	-.0478	-.0450	-.0418	-.0386
-.100	-.0922	-.0896	-.0870	-.0844	-.0814	-.0786	-.0756	-.0724	-.0692	-.0656	-.0620	-.0580	-.0538
-.150	-.1390	-.1354	-.1316	-.1278	-.1238	-.1196	-.1154	-.1110	-.1064	-.1014	-.0964	-.0910	-.0852
-.200	-.1880	-.1834	-.1786	-.1736	-.1686	-.1634	-.1578	-.1522	-.1464	-.1402	-.1338	-.1272	-.1200
-.250	-.2382	-.2326	-.2268	-.2208	-.2148	-.2084	-.2020	-.1952	-.1884	-.1810	-.1734	-.1656	-.1572
-.300	-.2894	-.2830	-.2762	-.2694	-.2624	-.2552	-.2476	-.2400	-.2320	-.2238	-.2152	-.2062	-.1968
-.400	-.3944	-.3862	-.3780	-.3696	-.3608	-.3518	-.3426	-.3332	-.3234	-.3134	-.3030	-.2922	-.2810
-.500	-.5030	-.4936	-.4838	-.4738	-.4638	-.4534	-.4426	-.4316	-.4204	-.4088	-.3968	-.3844	-.3716
-.600	-.6152	-.6044	-.5934	-.5822	-.5708	-.5590	-.5470	-.5348	-.5222	-.5092	-.4958	-.4822	-.4682
-.700	-.7298	-.7178	-.7058	-.6934	-.6808	-.6678	-.6546	-.6412	-.6274	-.6134	-.5990	-.5840	-.5688
-.800	-.8468	-.8340	-.8208	-.8074	-.7938	-.7798	-.7656	-.7512	-.7364	-.7212	-.7056	-.6898	-.6736

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.20]$

P_1 / $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.9006	0.8690	0.8360	0.8018	0.7660	0.7276	0.6876	0.6446	0.5988	0.5488	0.4936	0.4310	0.3578	0.2644
.700	.7870	.7628	.7380	.7120	.6850	.6568	.6276	.5962	.5634	.5282	.4906	.4496	.4044	.3532
.600	.6774	.6592	.6402	.6206	.6002	.5792	.5572	.5342	.5102	.4850	.4582	.4296	.3990	.3658
.500	.5684	.5544	.5402	.5256	.5104	.4948	.4786	.4618	.4444	.4260	.4070	.3868	.3654	.3426
.400	.4580	.4480	.4376	.4270	.4160	.4048	.3930	.3810	.3686	.3556	.3422	.3280	.3134	.2978
.300	.3464	.3394	.3322	.3250	.3174	.3096	.3018	.2936	.2852	.2764	.2674	.2580	.2482	.2380
.250	.2896	.2840	.2784	.2726	.2666	.2604	.2540	.2474	.2408	.2338	.2266	.2192	.2116	.2036
.200	.2326	.2282	.2240	.2194	.2148	.2100	.2052	.2002	.1950	.1898	.1842	.1786	.1728	.1668
.150	.1752	.1720	.1688	.1656	.1622	.1588	.1554	.1518	.1482	.1442	.1404	.1364	.1322	.1278
.100	.1170	.1150	.1130	.1110	.1088	.1066	.1044	.1020	.0998	.0972	.0948	.0922	.0896	.0868
.075	.0880	.0866	.0850	.0836	.0820	.0804	.0786	.0770	.0752	.0734	.0716	.0698	.0678	.0658
.050	.0588	.0578	.0568	.0558	.0548	.0536	.0526	.0514	.0504	.0492	.0480	.0468	.0454	.0442
.025	.0294	.0288	.0284	.0280	.0274	.0270	.0264	.0258	.0252	.0246	.0240	.0234	.0228	.0222
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0296	-.0292	-.0286	-.0282	-.0276	-.0272	-.0266	-.0262	-.0256	-.0250	-.0244	-.0240	-.0234	-.0226
-.050	-.0592	-.0582	-.0574	-.0564	-.0554	-.0544	-.0534	-.0524	-.0514	-.0502	-.0492	-.0480	-.0468	-.0456
-.075	-.0890	-.0876	-.0862	-.0848	-.0834	-.0820	-.0804	-.0790	-.0774	-.0758	-.0742	-.0726	-.0708	-.0690
-.100	-.1190	-.1172	-.1154	-.1136	-.1116	-.1098	-.1078	-.1058	-.1038	-.1016	-.0996	-.0974	-.0950	-.0928
-.150	-.1788	-.1762	-.1736	-.1708	-.1682	-.1654	-.1626	-.1596	-.1566	-.1536	-.1506	-.1474	-.1442	-.1408
-.200	-.2392	-.2358	-.2324	-.2290	-.2254	-.2218	-.2182	-.2144	-.2106	-.2068	-.2028	-.1986	-.1944	-.1902
-.250	-.3000	-.2958	-.2918	-.2876	-.2832	-.2788	-.2744	-.2698	-.2652	-.2604	-.2556	-.2508	-.2458	-.2406
-.300	-.3612	-.3564	-.3516	-.3466	-.3416	-.3366	-.3314	-.3260	-.3206	-.3152	-.3096	-.3038	-.2980	-.2920
-.400	-.4842	-.4782	-.4720	-.4658	-.4594	-.4530	-.4464	-.4398	-.4330	-.4262	-.4190	-.4120	-.4046	-.3970
-.500	-.6084	-.6012	-.5940	-.5866	-.5790	-.5714	-.5638	-.5558	-.5478	-.5396	-.5314	-.5228	-.5142	-.5054
-.600	-.7334	-.7252	-.7170	-.7086	-.7000	-.6912	-.6824	-.6734	-.6642	-.6550	-.6456	-.6360	-.6262	-.6162
-.700	-.8606	-.8514	-.8422	-.8326	-.8232	-.8136	-.8036	-.7938	-.7836	-.7732	-.7628	-.7520	-.7412	-.7302
-.800	-.9876	-.9778	-.9676	-.9572	-.9468	-.9362	-.9254	-.9146	-.9036	-.8922	-.8810	-.8692	-.8576	-.8456

P_1 / $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.1080	------	------	------	------	------	------	------	------	------	------	------	------
.700	.2932	0.2166	0.0886	------	------	------	------	------	------	------	------	------	------
.600	.3290	.2874	.2384	0.1762	0.0720	------	------	------	------	------	------	------	------
.500	.3182	.2916	.2622	.2292	.1902	0.1406	0.0574	------	------	------	------	------	------
.400	.2814	.2638	.2450	.2246	.2020	.1764	.1464	0.1082	0.0442	------	------	------	------
.300	.2272	.2160	.2042	.1914	.1778	.1628	.1464	.1280	.1062	0.0784	0.0320	------	------
.250	.1952	.1864	.1772	.1674	.1570	.1458	.1336	.1202	.1050	.0870	.0644	0.0262	------
.200	.1604	.1538	.1470	.1396	.1320	.1236	.1148	.1052	.0946	.0828	.0686	.0508	.0208
.150	.1234	.1186	.1138	.1086	.1032	.0976	.0914	.0850	.0778	.0700	.0612	.0508	.0376
.100	.0840	.0810	.0780	.0748	.0714	.0678	.0642	.0602	.0558	.0512	.0460	.0402	.0334
.075	.0636	.0616	.0592	.0570	.0552	.0520	.0492	.0464	.0432	.0400	.0362	.0322	.0276
.050	.0428	.0414	.0400	.0384	.0368	.0352	.0334	.0316	.0296	.0276	.0252	.0226	.0198
.025	.0216	.0208	.0202	.0194	.0186	.0182	.0170	.0162	.0152	.0142	.0130	.0120	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0220	-.0214	-.0208	-.0200	-.0194	-.0186	-.0180	-.0170	-.0160	-.0150	-.0140	-.0130	-.0118
-.050	-.0444	-.0432	-.0418	-.0404	-.0390	-.0376	-.0360	-.0344	-.0326	-.0308	-.0290	-.0268	-.0246
-.075	-.0672	-.0654	-.0634	-.0614	-.0592	-.0572	-.0548	-.0526	-.0500	-.0474	-.0446	-.0416	-.0384
-.100	-.0904	-.0880	-.0854	-.0828	-.0800	-.0772	-.0744	-.0712	-.0680	-.0648	-.0612	-.0574	-.0532
-.150	-.1374	-.1338	-.1302	-.1264	-.1226	-.1186	-.1144	-.1100	-.1056	-.1008	-.0958	-.0906	-.0848
-.200	-.1858	-.1812	-.1766	-.1718	-.1668	-.1618	-.1564	-.1510	-.1452	-.1392	-.1330	-.1264	-.1194
-.250	-.2352	-.2298	-.2242	-.2184	-.2126	-.2064	-.2000	-.1936	-.1868	-.1796	-.1722	-.1644	-.1564
-.300	-.2858	-.2794	-.2730	-.2664	-.2596	-.2526	-.2452	-.2378	-.2300	-.2218	-.2134	-.2046	-.1954
-.400	-.3894	-.3816	-.3736	-.3654	-.3568	-.3482	-.3392	-.3300	-.3206	-.3108	-.3006	-.2900	-.2790
-.500	-.4964	-.4872	-.4778	-.4682	-.4582	-.4482	-.4378	-.4272	-.4162	-.4050	-.3932	-.3812	-.3688
-.600	-.6060	-.5956	-.5850	-.5740	-.5630	-.5516	-.5400	-.5282	-.5158	-.5034	-.4904	-.4772	-.4634
-.700	-.7190	-.7074	-.6958	-.6838	-.6716	-.6592	-.6464	-.6334	-.6200	-.6064	-.5924	-.5780	-.5632
-.800	-.8334	-.8208	-.8082	-.7954	-.7822	-.7688	-.7550	-.7412	-.7268	-.7122	-.6972	-.6816	-.6660

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.25]$

P_1 / $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.8870	0.8566	0.8248	0.7914	0.7566	0.7198	0.6810	0.6394	0.5948	0.5464	0.4928	0.4324	0.3618	0.2730
.700	.7750	.7516	.7276	.7026	.6766	.6492	.6206	.5904	.5586	.5244	.4878	.4480	.4042	.3548
.600	.6598	.6490	.6308	.6120	.5922	.5720	.5506	.5286	.5052	.4806	.4546	.4270	.3972	.3648
.500	.5588	.5456	.5320	.5178	.5032	.4882	.4726	.4562	.4394	.4216	.4030	.3834	.3626	.3406
.400	.4500	.4404	.4304	.4202	.4096	.3988	.3876	.3760	.3640	.3514	.3384	.3246	.3104	.2952
.300	.3396	.3330	.3260	.3190	.3118	.3044	.2968	.2890	.2808	.2724	.2636	.2546	.2452	.2352
.250	.2842	.2790	.2734	.2678	.2620	.2562	.2502	.2438	.2374	.2306	.2238	.2166	.2092	.2014
.200	.2280	.2238	.2196	.2154	.2110	.2064	.2018	.1970	.1920	.1870	.1816	.1762	.1706	.1646
.150	.1716	.1686	.1656	.1624	.1594	.1560	.1526	.1492	.1456	.1420	.1382	.1344	.1304	.1262
.100	.1148	.1130	.1110	.1090	.1070	.1048	.1028	.1006	.0982	.0960	.0934	.0910	.0884	.0858
.075	.0862	.0848	.0834	.0818	.0804	.0788	.0772	.0756	.0740	.0722	.0704	.0686	.0668	.0648
.050	.0578	.0568	.0558	.0548	.0538	.0528	.0518	.0508	.0496	.0486	.0474	.0462	.0450	.0438
.025	.0288	.0282	.0278	.0274	.0268	.0264	.0258	.0254	.0248	.0242	.0236	.0232	.0226	.0220
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0290	-.0286	-.0280	-.0276	-.0272	-.0266	-.0262	-.0256	-.0252	-.0246	-.0240	-.0236	-.0230	-.0224
-.050	-.0578	-.0570	-.0562	-.0552	-.0544	-.0534	-.0524	-.0514	-.0504	-.0494	-.0484	-.0472	-.0462	-.0450
-.075	-.0872	-.0860	-.0846	-.0834	-.0820	-.0806	-.0792	-.0778	-.0762	-.0746	-.0732	-.0716	-.0698	-.0682
-.100	-.1160	-.1144	-.1126	-.1110	-.1092	-.1074	-.1056	-.1036	-.1016	-.0996	-.0976	-.0956	-.0934	-.0912
-.150	-.1750	-.1724	-.1700	-.1674	-.1648	-.1622	-.1596	-.1568	-.1540	-.1510	-.1482	-.1450	-.1420	-.1388
-.200	-.2338	-.2308	-.2276	-.2242	-.2210	-.2174	-.2140	-.2104	-.2068	-.2030	-.1992	-.1954	-.1914	-.1872
-.250	-.2930	-.2892	-.2854	-.2814	-.2774	-.2732	-.2690	-.2646	-.2602	-.2558	-.2512	-.2464	-.2416	-.2366
-.300	-.3528	-.3482	-.3438	-.3392	-.3344	-.3296	-.3246	-.3196	-.3144	-.3092	-.3038	-.2984	-.2928	-.2870
-.400	-.4730	-.4674	-.4616	-.4558	-.4498	-.4438	-.4376	-.4312	-.4248	-.4182	-.4116	-.4046	-.3976	-.3904
-.500	-.5938	-.5872	-.5804	-.5734	-.5664	-.5592	-.5520	-.5444	-.5368	-.5290	-.5212	-.5130	-.5050	-.4964
-.600	-.7158	-.7082	-.7004	-.6926	-.6844	-.6762	-.6680	-.6594	-.6510	-.6422	-.6330	-.6240	-.6146	-.6052
-.700	-.8386	-.8302	-.8214	-.8126	-.8038	-.7946	-.7854	-.7760	-.7664	-.7568	-.7468	-.7366	-.7264	-.7160
-.800	-.9622	-.9530	-.9436	-.9340	-.9242	-.9144	-.9044	-.8940	-.8838	-.8732	-.8624	-.8514	-.8402	-.8288

P_1 / $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.1336	------	------	------	------	------	------	------	------	------	------	------	------
.700	.2968	0.2240	0.1096	------	------	------	------	------	------	------	------	------	------
.600	.3290	.2888	.2416	0.1822	0.0892	------	------	------	------	------	------	------	------
.500	.3168	.2910	.2624	.2304	.1926	0.1454	0.0712	------	------	------	------	------	------
.400	.2792	.2622	.2440	.2240	.2022	.1774	.1484	0.1120	0.0548	------	------	------	------
.300	.2248	.2140	.2024	.1900	.1768	.1624	.1464	.1286	.1076	0.0812	0.0396	------	------
.250	.1932	.1846	.1756	.1662	.1560	.1452	.1334	.1202	.1056	.0884	.0666	0.0326	------
.200	.1584	.1522	.1454	.1384	.1308	.1230	.1144	.1050	.0948	.0832	.0696	.0524	0.0256
.150	.1218	.1172	.1126	.1076	.1024	.0968	.0910	.0846	.0776	.0700	.0614	.0514	.0388
.100	.0830	.0802	.0772	.0740	.0708	.0674	.0638	.0598	.0556	.0512	.0460	.0404	.0338
.075	.0628	.0608	.0587	.0564	.0540	.0514	.0488	.0460	.0430	.0398	.0362	.0322	.0278
.050	.0424	.0410	.0396	.0382	.0366	.0350	.0334	.0316	.0296	.0276	.0252	.0228	.0200
.025	.0212	.0206	.0200	.0192	.0184	.0176	.0168	.0160	.0150	.0142	.0130	.0118	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0218	-.0212	-.0204	-.0198	-.0190	-.0184	-.0176	-.0168	-.0158	-.0150	-.0140	-.0130	-.0118
-.050	-.0438	-.0426	-.0412	-.0400	-.0386	-.0372	-.0356	-.0340	-.0324	-.0306	-.0288	-.0268	-.0246
-.075	-.0664	-.0646	-.0626	-.0608	-.0588	-.0566	-.0544	-.0522	-.0498	-.0472	-.0444	-.0416	-.0384
-.100	-.0888	-.0864	-.0840	-.0816	-.0790	-.0762	-.0734	-.0704	-.0672	-.0640	-.0606	-.0568	-.0528
-.150	-.1354	-.1320	-.1286	-.1248	-.1212	-.1172	-.1132	-.1090	-.1046	-.1000	-.0952	-.0900	-.0846
-.200	-.1830	-.1786	-.1742	-.1696	-.1648	-.1598	-.1546	-.1494	-.1438	-.1380	-.1318	-.1256	-.1186
-.250	-.2316	-.2262	-.2208	-.2154	-.2096	-.2038	-.1976	-.1912	-.1846	-.1778	-.1706	-.1632	-.1552
-.300	-.2812	-.2750	-.2688	-.2624	-.2560	-.2490	-.2420	-.2348	-.2274	-.2194	-.2112	-.2028	-.1938
-.400	-.3832	-.3756	-.3678	-.3600	-.3518	-.3434	-.3348	-.3260	-.3168	-.3072	-.2974	-.2872	-.2764
-.500	-.4878	-.4790	-.4700	-.4608	-.4512	-.4416	-.4316	-.4214	-.4108	-.3998	-.3886	-.3770	-.3648
-.600	-.5954	-.5854	-.5752	-.5650	-.5542	-.5434	-.5322	-.5208	-.5090	-.4970	-.4844	-.4716	-.4582
-.700	-.7052	-.6942	-.6832	-.6718	-.6600	-.6482	-.6360	-.6236	-.6108	-.5976	-.5840	-.5702	-.5558
-.800	-.8170	-.8054	-.7934	-.7812	-.7686	-.7558	-.7426	-.7294	-.7156	-.7016	-.6870	-.6722	-.6570

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.30]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.8708	0.8416	0.8112	0.7794	0.7458	0.7106	0.6730	0.6330	0.5900	0.5434	0.4918	0.4338	0.3664	0.2824
.700	.7604	.7384	.7152	.6912	.6662	.6400	.6124	.5834	.5526	.5198	.4844	.4462	.4038	.3562
.600	.6534	.6366	.6192	.6012	.5824	.5628	.5424	.5212	.4988	.4750	.4500	.4232	.3946	.3634
.500	.5472	.5348	.5216	.5082	.4944	.4798	.4648	.4494	.4330	.4160	.3980	.3792	.3592	.3378
.400	.4404	.4312	.4218	.4122	.4020	.3916	.3810	.3698	.3582	.3462	.3336	.3206	.3068	.2922
.300	.3320	.3258	.3192	.3128	.3058	.2988	.2914	.2840	.2762	.2682	.2598	.2510	.2420	.2324
.250	.2778	.2726	.2674	.2622	.2568	.2536	.2454	.2394	.2332	.2268	.2202	.2132	.2062	.1986
.200	.2230	.2190	.2150	.2110	.2068	.2026	.1980	.1936	.1888	.1840	.1788	.1736	.1682	.1626
.150	.1674	.1646	.1618	.1588	.1558	.1528	.1496	.1462	.1430	.1394	.1358	.1320	.1282	.1242
.100	.1118	.1100	.1082	.1064	.1044	.1024	.1004	.0984	.0962	.0940	.0916	.0892	.0868	.0844
.075	.0840	.0828	.0814	.0800	.0786	.0772	.0756	.0740	.0724	.0708	.0692	.0674	.0656	.0638
.05	.0560	.0550	.0542	.0532	.0524	.0514	.0504	.0494	.0484	.0474	.0462	.0452	.0440	.0428
.025	.0284	.0278	.0274	.0270	.0266	.0260	.0256	.0250	.0246	.0240	.0236	.0230	.0224	.0218
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0282	-.0278	-.0274	-.0270	-.0266	-.0262	-.0256	-.0252	-.0248	-.0242	-.0236	-.0232	-.0226	-.0220
-.050	-.0566	-.0558	-.0548	-.0540	-.0532	-.0522	-.0514	-.0504	-.0494	-.0486	-.0474	-.0464	-.0454	-.0442
-.075	-.0850	-.0838	-.0826	-.0812	-.0800	-.0788	-.0774	-.0760	-.0746	-.0732	-.0716	-.0702	-.0686	-.0670
-.100	-.1132	-.1118	-.1102	-.1084	-.1068	-.1052	-.1034	-.1016	-.0998	-.0978	-.0958	-.0938	-.0918	-.0896
-.150	-.1702	-.1678	-.1656	-.1632	-.1608	-.1584	-.1558	-.1532	-.1506	-.1478	-.1450	-.1420	-.1392	-.1360
-.200	-.2278	-.2250	-.2218	-.2188	-.2158	-.2126	-.2092	-.2058	-.2024	-.1990	-.1954	-.1916	-.1878	-.1838
-.250	-.2854	-.2816	-.2780	-.2742	-.2706	-.2666	-.2626	-.2586	-.2546	-.2502	-.2458	-.2414	-.2368	-.2322
-.300	-.3432	-.3390	-.3348	-.3306	-.3262	-.3216	-.3170	-.3122	-.3074	-.3026	-.2974	-.2922	-.2870	-.2816
-.400	-.4594	-.4542	-.4488	-.4436	-.4380	-.4324	-.4266	-.4206	-.4146	-.4084	-.4022	-.3956	-.3890	-.3822
-.500	-.5766	-.5704	-.5640	-.5578	-.5512	-.5446	-.5378	-.5308	-.5236	-.5164	-.5090	-.5014	-.4938	-.4858
-.600	-.6942	-.6872	-.6800	-.6728	-.6654	-.6578	-.6500	-.6422	-.6342	-.6260	-.6176	-.6090	-.6004	-.5914
-.700	-.8126	-.8048	-.7968	-.7888	-.7806	-.7722	-.7638	-.7550	-.7462	-.7372	-.7278	-.7184	-.7088	-.6990
-.800	-.9322	-.9236	-.9148	-.9061	-.8974	-.8882	-.8788	-.8696	-.8598	-.8500	-.8400	-.8298	-.8196	-.8088

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.1582	------	------	------	------	------	------	------	------	------	------	------	------
.700	.3008	0.2318	0.1298	------	------	------	------	------	------	------	------	------	------
.600	.3288	.2900	.2450	0.1888	0.1058	------	------	------	------	------	------	------	------
.500	.3148	.2900	.2624	.2314	.1954	0.1506	0.0844	------	------	------	------	------	------
.400	.2768	.2604	.2426	.2234	.2022	.1784	.1506	0.1162	0.0650	------	------	------	------
.300	.2224	.2118	.2006	.1888	.1760	.1620	.1466	.1292	.1092	0.0842	0.0472	------	------
.250	.1908	.1826	.1740	.1648	.1550	.1444	.1330	.1204	.1062	.0896	.0692	0.0388	------
.200	.1566	.1506	.1440	.1373	.1310	.1222	.1140	.1048	.0950	.0838	.0708	.0546	0.0306
.150	.1200	.1158	.1112	.1064	.1014	.0960	.0902	.0842	.0774	.0700	.0618	.0522	.0402
.100	.0816	.0790	.0760	.0730	.0700	.0666	.0630	.0594	.0552	.0510	.0460	.0406	.0344
.075	.0618	.0598	.0578	.0552	.0532	.0508	.0484	.0456	.0428	.0396	.0362	.0324	.0280
.050	.0416	.0402	.0388	.0374	.0360	.0344	.0328	.0310	.0292	.0272	.0250	.0226	.0200
.025	.0212	.0206	.0198	.0192	.0184	.0176	.0167	.0160	.0152	.0142	.0132	.0120	.0108
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0214	-.0208	-.0202	-.0196	-.0188	-.0182	-.0174	-.0166	-.0158	-.0150	-.0140	-.0130	-.0118
-.050	-.0432	-.0420	-.0408	-.0394	-.0382	-.0368	-.0352	-.0338	-.0322	-.0304	-.0286	-.0268	-.0246
-.075	-.0652	-.0634	-.0616	-.0598	-.0578	-.0558	-.0538	-.0516	-.0492	-.0468	-.0442	-.0414	-.0384
-.100	-.0876	-.0852	-.0830	-.0804	-.0780	-.0754	-.0726	-.0698	-.0668	-.0636	-.0602	-.0566	-.0528
-.150	-.1330	-.1284	-.1264	-.1228	-.1192	-.1156	-.1116	-.1076	-.1034	-.0990	-.0942	-.0892	-.0840
-.200	-.1798	-.1756	-.1714	-.1670	-.1624	-.1576	-.1526	-.1476	-.1422	-.1366	-.1308	-.1244	-.1180
-.250	-.2272	-.2222	-.2172	-.2118	-.2064	-.2006	-.1948	-.1888	-.1824	-.1758	-.1688	-.1616	-.1538
-.300	-.2760	-.2702	-.2642	-.2582	-.2578	-.2452	-.2386	-.2316	-.2242	-.2168	-.2088	-.2006	-.1920
-.400	-.3754	-.3682	-.3608	-.3534	-.3456	-.3376	-.3294	-.3208	-.3120	-.3028	-.2934	-.2834	-.2732
-.500	-.4776	-.4694	-.4608	-.4520	-.4430	-.4338	-.4242	-.4144	-.4042	-.3938	-.3830	-.3718	-.3602
-.600	-.5822	-.5728	-.5632	-.5534	-.5434	-.5330	-.5224	-.5114	-.5002	-.4886	-.4766	-.4644	-.4516
-.700	-.6890	-.6788	-.6682	-.6574	-.6464	-.6352	-.6236	-.6118	-.5995	-.5870	-.5740	-.5608	-.5470
-.800	-.7980	-.7870	-.7756	-.7640	-.7522	-.7400	-.7278	-.7150	-.7020	-.6886	-.6748	-.6608	-.6462

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.35]$

P_1 $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.8518	0.8242	0.7952	0.7648	0.7330	0.6992	0.6634	0.6252	0.5842	0.5394	0.4904	0.4350	0.3708	0.2924
.700	.7432	.7222	.7002	.6776	.6538	.6288	.6024	.5748	.5454	.5140	.4802	.4434	.4030	.3576
.600	.6384	.6226	.6060	.5890	.5712	.5524	.5332	.5128	.4912	.4688	.4446	.4190	.3916	.3616
.500	.5340	.5222	.5100	.4972	.4840	.4704	.4562	.4414	.4258	.4096	.3924	.3744	.3552	.3346
.400	.4290	.4204	.4116	.4026	.3930	.3832	.3730	.3626	.3516	.3400	.3282	.3156	.3024	.2884
.300	.3234	.3176	.3116	.3054	.2990	.2922	.2854	.2782	.2708	.2632	.2552	.2470	.2382	.2292
.250	.2700	.2654	.2606	.2556	.2506	.2452	.2398	.2342	.2282	.2222	.2160	.2094	.2026	.1954
.200	.2166	.2130	.2092	.2054	.2016	.1976	.1934	.1890	.1846	.1800	.1752	.1702	.1652	.1598
.150	.1628	.1604	.1576	.1550	.1520	.1492	.1462	.1432	.1400	.1366	.1332	.1296	.1260	.1222
.100	.1090	.1074	.1056	.1038	.1020	.1002	.0984	.0964	.0942	.0922	.0900	.0878	.0854	.0830
.075	.0818	.0804	.0790	.0778	.0764	.0752	.0738	.0722	.0708	.0692	.0676	.0660	.0644	.0626
.050	.0544	.0536	.0528	.0518	.0510	.0502	.0492	.0482	.0474	.0464	.0452	.0442	.0432	.0420
.025	.0274	.0270	.0266	.0262	.0258	.0254	.0248	.0244	.0240	.0234	.0230	.0224	.0218	.0212
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0274	-.0270	-.0266	-.0262	-.0258	-.0254	-.0250	-.0244	-.0240	-.0236	-.0230	-.0226	-.0220	-.0216
-.05	-.0546	-.0538	-.0532	-.0524	-.0516	-.0508	-.0498	-.0490	-.0482	-.0472	-.0462	-.0452	-.0442	-.0432
-.075	-.0822	-.0812	-.0800	-.0790	-.0778	-.0766	-.0752	-.0740	-.0726	-.0714	-.0700	-.0686	-.0670	-.0654
-.100	-.1096	-.1082	-.1068	-.1052	-.1038	-.1022	-.1004	-.0988	-.0970	-.0954	-.0934	-.0916	-.0896	-.0876
-.150	-.1652	-.1632	-.1610	-.1588	-.1566	-.1544	-.1520	-.1496	-.1470	-.1444	-.1418	-.1392	-.1364	-.1334
-.200	-.2194	-.2166	-.2140	-.2112	-.2082	-.2052	-.2022	-.1992	-.1960	-.1928	-.1894	-.1860	-.1824	-.1786
-.250	-.2760	-.2728	-.2694	-.2660	-.2626	-.2590	-.2554	-.2516	-.2476	-.2437	-.2396	-.2356	-.2312	-.2268
-.300	-.3320	-.3282	-.3244	-.3204	-.3164	-.3122	-.3080	-.3036	-.2992	-.2946	-.2898	-.2850	-.2800	-.2750
-.400	-.4442	-.4394	-.4346	-.4296	-.4246	-.4194	-.4140	-.4086	-.4030	-.3974	-.3916	-.3856	-.3794	-.3730
-.500	-.5566	-.5512	-.5454	-.5396	-.5336	-.5276	-.5214	-.5150	-.5084	-.5018	-.4948	-.4880	-.4808	-.4734
-.600	-.6688	-.6626	-.6562	-.6496	-.6428	-.6360	-.6290	-.6216	-.6144	-.6068	-.5992	-.5914	-.5832	-.5748
-.700	-.7836	-.7770	-.7698	-.7624	-.7552	-.7474	-.7396	-.7318	-.7236	-.7154	-.7070	-.6984	-.6894	-.6802
-.800	-.8974	-.8898	-.8820	-.8744	-.8664	-.8582	-.8498	-.8412	-.8324	-.8236	-.8144	-.8052	-.7956	-.7858

P_1 $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.1814	------	------	------	------	------	------	------	------	------	------	------	------
.700	.3048	0.2402	0.1490	------	------	------	------	------	------	------	------	------	------
.600	.3286	.2914	.2486	0.1958	0.1216	------	------	------	------	------	------	------	------
.500	.3126	.2888	.2624	.2328	.1984	0.1564	0.0970	------	------	------	------	------	------
.400	.2736	.2578	.2410	.2224	.2022	.1794	.1528	0.1206	0.0748	------	------	------	------
.300	.2196	.2094	.1986	.1872	.1748	.1614	.1468	.1302	.1110	0.0874	0.0542	------	------
.250	.1880	.1800	.1718	.1630	.1536	.1434	.1324	.1204	.1068	.0910	.0718	0.0446	------
.200	.1540	.1482	.1420	.1354	.1284	.1210	.1130	.1044	.0950	.0842	.0718	.0566	0.0350
.150	.1182	.1140	.1096	.1050	.1002	.0950	.0896	.0838	.0772	.0702	.0624	.0532	.0418
.100	.0806	.0778	.0752	.0722	.0692	.0660	.0626	.0590	.0552	.0508	.0462	.0410	.0350
.075	.0608	.0588	.0568	.0548	.0526	.0502	.0478	.0452	.0424	.0394	.0362	.0324	.0284
.050	.0408	.0396	.0382	.0370	.0354	.0340	.0324	.0308	.0290	.0270	.0250	.0228	.0202
.025	.0208	.0202	.0194	.0188	.0182	.0174	.0166	.0158	.0150	.0140	.0130	.0120	.0108
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0210	-.0204	-.0198	-.0192	-.0186	-.0178	-.0172	-.0164	-.0156	-.0148	-.0138	-.0128	-.0118
-.05	-.0420	-.0410	-.0398	-.0386	-.0374	-.0360	-.0346	-.0332	-.0316	-.0300	-.0284	-.0260	-.0244
-.075	-.0638	-.0622	-.0606	-.0588	-.0570	-.0550	-.0530	-.0508	-.0486	-.0462	-.0438	-.0410	-.0382
-.100	-.0856	-.0834	-.0812	-.0790	-.0766	-.0740	-.0714	-.0686	-.0658	-.0628	-.0596	-.0562	-.0524
-.150	-.1304	-.1274	-.1242	-.1208	-.1174	-.1138	-.1102	-.1062	-.1022	-.0980	-.0934	-.0886	-.0834
-.200	-.1748	-.1710	-.1670	-.1628	-.1584	-.1540	-.1492	-.1444	-.1392	-.1340	-.1284	-.1224	-.1162
-.250	-.2222	-.2176	-.2126	-.2076	-.2024	-.1970	-.1914	-.1856	-.1796	-.1732	-.1666	-.1596	-.1522
-.300	-.2696	-.2642	-.2586	-.2528	-.2468	-.2406	-.2342	-.2276	-.2208	-.2134	-.2060	-.1980	-.1898
-.400	-.3664	-.3598	-.3528	-.3458	-.3384	-.3308	-.3230	-.3150	-.3066	-.2978	-.2888	-.2792	-.2694
-.500	-.4658	-.4580	-.4500	-.4416	-.4332	-.4244	-.4154	-.4062	-.3966	-.3866	-.3762	-.3656	-.3544
-.600	-.5664	-.5578	-.5488	-.5396	-.5302	-.5204	-.5104	-.5000	-.4894	-.4784	-.4672	-.4554	-.4432
-.700	-.6710	-.6614	-.6518	-.6418	-.6314	-.6208	-.6098	-.5986	-.5872	-.5752	-.5630	-.5504	-.5374
-.800	-.7758	-.7654	-.7548	-.7442	-.7332	-.7218	-.7104	-.6984	-.6860	-.6734	-.6606	-.6472	-.6334

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.40]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.8300	0.8040	0.7768	0.7484	0.7182	0.6864	0.6524	0.6162	0.5772	0.5346	0.4882	0.4356	0.3754	0.3022
.700	.7240	.7044	.6838	.6624	.6400	.6164	.5916	.5654	.5374	.5076	.4754	.4404	.4020	.3588
.600	.6210	.6062	.5966	.5748	.5580	.5404	.5232	.5030	.4828	.4612	.4384	.4140	.3878	.3592
.500	.5190	.5080	.4964	.4848	.4724	.4596	.4462	.4322	.4176	.4022	.3858	.3686	.3504	.3310
.400	.4168	.4088	.4006	.3922	.3834	.3742	.3046	.3546	.3444	.3336	.3222	.3102	.2978	.2844
.300	.3134	.3080	.3024	.2966	.2906	.2844	.2780	.2714	.2644	.2572	.2498	.2418	.2336	.2250
.250	.2616	.2572	.2528	.2482	.2436	.2386	.2336	.2282	.2228	.2172	.2112	.2050	.1986	.1918
.200	.2098	.2066	.2032	.1996	.1960	.1922	.1884	.1844	.1802	.1758	.1714	.1666	.1618	.1568
.150	.1576	.1552	.1528	.1502	.1476	.1450	.1422	.1394	.1364	.1332	.1300	.1268	.1232	.1196
.100	.1052	.1036	.1020	.1004	.0988	.0970	.0954	.0934	.0916	.0896	.0876	.0856	.0834	.0810
.075	.0790	.0780	.0768	.0756	.0744	.0732	.0718	.0704	.0690	.0676	.0662	.0646	.0630	.0614
.050	.0528	.0520	.0512	.0504	.0496	.0488	.0480	.0472	.0462	.0454	.0444	.0434	.0422	.0412
.025	.0262	.0258	.0254	.0252	.0248	.0244	.0240	.0236	.0230	.0226	.0222	.0216	.0212	.0206
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0266	-.0262	-.0260	-.0256	-.0252	-.0248	-.0244	-.0240	-.0236	-.0232	-.0226	-.0222	-.0216	-.0212
-.050	-.0530	-.0522	-.0516	-.0508	-.0502	-.0494	-.0486	-.0478	-.0470	-.0460	-.0452	-.0442	-.0434	-.0424
-.075	-.0796	-.0786	-.0776	-.0766	-.0754	-.0744	-.0732	-.0720	-.0708	-.0696	-.0682	-.0668	-.0654	-.0640
-.100	-.1060	-.1046	-.1032	-.1020	-.1006	-.0990	-.0976	-.0960	-.0944	-.0928	-.0912	-.0844	-.0876	-.0856
-.150	-.1592	-.1574	-.1554	-.1534	-.1514	-.1492	-.1472	-.1450	-.1426	-.1402	-.1378	-.1352	-.1326	-.1300
-.200	-.2126	-.2102	-.2026	-.2052	-.2026	-.1998	-.1970	-.1942	-.1914	- 1882	-.1852	-.1820	-.1786	-.1752
-.250	-.2660	-.2632	-.2602	-.2572	-.2540	-.2508	-.2474	-.2440	-.2404	-.2368	-.2330	-.2292	-.2252	-.2210
-.300	-.3198	-.3164	-.3128	-.3094	-.3058	-.3020	-.2982	-.2942	-.2900	-.2858	-.2816	-.2770	-.2724	-.2678
-.400	-.4270	-.4228	-.4186	-.4142	-.4096	-.4050	-.4002	-.3952	-.3902	-.3850	-.3796	-.3740	-.3684	-.3626
-.500	-.5350	-.5302	-.5250	-.5200	-.5148	-.5092	-.5036	-.4978	-.4930	-.4860	-.4798	-.4732	-.4666	-.4598
-.600	-.6430	-.6376	-.6318	-.6260	-.6202	-.6140	-.6076	-.6012	-.5946	-.5878	-.5808	-.5736	-.5662	-.5586
-.700	-.7512	-.7450	-.7388	-.7326	-.7260	-.7194	-.7124	-.7054	-.6982	-.6906	-.6830	-.6752	-.6672	-.6588
-.800	-.8598	-.8532	-.8464	-.8398	-.8328	-.8256	-.8182	-.8106	-.8028	-.7950	-.7866	-.7782	-.7696	-.7608

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2030	------	------	------	------	------	------	------	------	------	------	------	------
.700	.3092	0.2438	0.1672	------	------	------	------	------	------	------	------	------	------
.600	.3278	.2926	.2522	0.2030	0.1364	------	------	------	------	------	------	------	------
.500	.3100	.2872	.2620	.2340	.2016	0.1622	0.1090	------	------	------	------	------	------
.400	.2704	.2854	.2392	.2216	.2022	.1804	.1554	0.1252	0.0840	------	------	------	------
.300	.2160	.2064	.1960	.1852	.1734	.1606	.1466	.1308	.1126	0.0908	0.0610	------	------
.250	.1848	.1772	.1694	.1610	.1520	.1424	.1318	.1204	.1074	.0926	.0744	0.0500	------
.200	.1514	.1458	.1400	.1336	.1270	.1200	.1124	.1040	.0950	.0848	.0730	.0586	0.0394
.150	.1160	.1120	.1078	.1034	.0988	.0940	.0888	.0830	.0770	.0702	.0626	.0540	.0434
.100	.0786	.0762	.0736	.0708	.0680	.0650	.0618	.0584	.0546	.0506	.0462	.0412	.0354
.075	.0596	.0578	.0560	.0540	.0518	.0496	.0474	.0448	.0422	.0392	.0362	.0326	.0288
.050	.0400	.0390	.0376	.0364	.0350	.0336	.0322	.0306	.0288	.0270	.0250	.0228	.0204
.025	.0200	.0196	.0190	.0182	.0176	.0170	.0162	.0154	.0146	.0138	.0128	.0119	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0206	-.0202	-.0196	-.0190	-.0184	-.0176	-.0170	-.0162	-.0156	-.0146	-.0138	-.0128	-.0118
-.050	-.0414	-.0402	-.0392	-.0380	-.0368	-.0356	-.0342	-.0328	-.0314	-.0298	-.0282	-.0264	-.0244
-.075	-.0626	-.0610	-.0594	-.0578	-.0560	-.0542	-.0522	-.0502	-.0480	-.0458	-.0434	-.0408	-.0380
-.100	-.0838	-.0818	-.0796	-.0774	-.0752	-.0728	-.0704	-.0678	-.0650	-.0620	-.0590	-.0556	-.0522
-.150	-.1272	-.1244	-.1214	-.1182	-.1150	-.1116	-.1080	-.1044	-.1006	-.0964	-.0922	-.0876	-.0826
-.200	-.1716	-.1680	-.1642	-.1602	-.1560	-.1518	-.1474	-.1426	-.1378	-.1326	-.1274	-.1216	-.1156
-.250	-.2168	-.2124	-.2078	-.2032	-.1982	-.1932	-.1878	-.1824	-.1766	-.1706	-.1642	-.1576	-.1504
-.300	-.2628	-.2578	-.2526	-.2470	-.2416	-.2356	-.2296	-.2235	-.2168	-.2098	-.2028	-.1952	-.1872
-.400	-.3566	-.3504	-.3440	-.3372	-.3304	-.3234	-.3160	-.3084	-.3004	-.2922	-.2836	-.2746	-.2652
-.500	-.4528	-.4456	-.4382	-.4306	-.4226	-.4144	-.4060	-.3974	-.3882	-.3788	-.3692	-.3590	-.3484
-.600	-.5508	-.5428	-.5346	-.5260	-.5172	-.5082	-.4988	-.4892	-.4792	-.4688	-.4592	-.4470	-.4356
-.700	-.6504	-.6416	-.6326	-.6234	-.6138	-.6040	-.5940	-.5836	-.5728	-.5616	-.5500	-.5384	-.5260
-.800	-.7518	-.7424	-.7328	-.7228	-.7128	-.7022	-.6916	-.6804	-.6690	-.6572	-.6452	-.6326	-.6196

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

[M_o = 0.45]

P_1 $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.8062	0.7822	0.7568	0.7302	0.7020	0.6720	0.6402	0.6062	0.5694	0.5294	0.4854	0.4362	0.3796	0.3118
.700	.7022	.6840	.6652	.6452	.6242	.6022	.5790	.5542	.5280	.4998	.4694	.4364	.4002	.3596
.600	.6016	.5882	.5740	.5592	.5436	.5272	.5102	.4922	.4730	.4528	.4314	.4082	.3836	.3566
.500	.5020	.4920	.4816	.4706	.4592	.4474	.4348	.4218	.4082	.3936	.3784	.3622	.3450	.3266
.400	.4026	.3952	.3878	.3800	.3720	.3634	.3546	.3454	.3358	.3256	.3150	.3040	.2922	.2796
.300	.3026	.2976	.2926	.2874	.2818	.2762	.2702	.2642	.2578	.2510	.2440	.2366	.2290	.2208
.250	.2524	.2486	.2446	.2404	.2360	.2316	.2270	.2220	.2170	.2116	.2062	.2004	.1944	.1880
.200	.2022	.1992	.1962	.1930	.1898	.1864	.1828	.1792	.1752	.1712	.1670	.1626	.1582	.1534
.150	.1518	.1498	.1476	.1452	.1428	.1404	.1380	.1352	.1326	.1298	.1268	.1236	.1204	.1170
.100	.1014	.1000	.0986	.0972	.0956	.0942	.0926	.0908	.0892	.0874	.0854	.0834	.0814	.0794
.075	.0760	.0750	.0740	.0728	.0718	.0706	.0694	.0682	.0670	.0656	.0642	.0628	.0614	.0598
.050	.0508	.0502	.0494	.0488	.0480	.0474	.0466	.0458	.0450	.0440	.0432	.0422	.0412	.0402
.025	.0252	.0250	.0246	.0242	.0240	.0236	.0232	.0228	.0224	.0220	.0216	.0212	.0206	.0202
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0256	-.0254	-.0250	-.0246	-.0244	-.0240	-.0236	-.0232	-.0228	-.0224	-.0220	-.0216	-.0212	-.0206
-.050	-.0512	-.0506	-.0500	-.0494	-.0486	-.0480	-.0472	-.0466	-.0458	-.0450	-.0442	-.0434	-.0424	-.0416
-.075	-.0764	-.0754	-.0746	-.0736	-.0726	-.0716	-.0706	-.0696	-.0684	-.0672	-.0662	-.0648	-.0636	-.0622
-.100	-.1016	-.1006	-.0994	-.0982	-.0968	-.0956	-.0942	-.0928	-.0914	-.0898	-.0884	-.0868	-.0850	-.0834
-.150	-.1528	-.1512	-.1494	-.1476	-.1458	-.1440	-.1420	-.1400	-.1380	-.1358	-.1336	-.1312	-.1288	-.1264
-.200	-.2040	-.2018	-.1996	-.1974	-.1952	-.1928	-.1902	-.1876	-.1850	-.1822	-.1794	-.1764	-.1734	-.1702
-.250	-.2552	-.2526	-.2500	-.2472	-.2446	-.2416	-.2386	-.2356	-.2324	-.2292	-.2256	-.2222	-.2186	-.2148
-.300	-.3064	-.3036	-.3006	-.2974	-.2942	-.2910	-.2874	-.2840	-.2802	-.2764	-.2726	-.2684	-.2642	-.2598
-.400	-.4088	-.4052	-.4016	-.3978	-.3938	-.3896	-.3854	-.3810	-.3766	-.3718	-.3670	-.3620	-.3568	-.3516
-.500	-.5128	-.5086	-.5044	-.4998	-.4952	-.4904	-.4856	-.4804	-.4752	-.4698	-.4642	-.4584	-.4524	-.4462
-.600	-.6144	-.6096	-.6050	-.6000	-.5948	-.5896	-.5840	-.5784	-.5724	-.5666	-.5604	-.5538	-.5474	-.5404
-.700	-.7170	-.7120	-.7068	-.7016	-.6958	-.6900	-.6840	-.6780	-.6716	-.6652	-.6584	-.6514	-.6442	-.6366
-.800	-.8196	-.8142	-.8088	-.8030	-.7970	-.7908	-.7846	-.7780	-.7712	-.7644	-.7570	-.7496	-.7420	-.7342

P_1 $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2230	0.0406	------	------	------	------	------	------	------	------	------	------	------
.700	.3128	.2572	0.1838	0.0334	------	------	------	------	------	------	------	------	------
.600	.3268	.2936	.2556	.2100	0.1504	0.0274	------	------	------	------	------	------	------
.500	.3066	.2852	.2614	.2348	.2044	.1680	0.1200	0.0218	------	------	------	------	------
.400	.2660	.2520	.2366	.2200	.2016	.1812	.1576	.1296	0.0926	0.0168	------	------	------
.300	.2122	.2030	.1934	.1830	.1720	.1598	.1464	.1316	.1146	.0940	0.0672	0.0122	------
.250	.1814	.1742	.1668	.1588	.1904	.1412	.1312	.1202	.1080	.0940	.0772	.0552	0.0100
.200	.1484	.1430	.1376	.1316	.1254	.1186	.1114	.1036	.0948	.0852	.0742	.0610	.0436
.150	.1134	.1098	.1058	.1018	.0974	.0928	.0878	.0824	.0766	.0702	.0630	.0548	.0450
.100	.0770	.0748	.0722	.0698	.0670	.0642	.0610	.0578	.0542	.0504	.0462	.0414	.0362
.075	.0582	.0566	.0548	.0528	.0508	.0488	.0466	.0442	.0418	.0390	.0360	.0328	.0290
.050	.0392	.0382	.0370	.0358	.0344	.0332	.0318	.0302	.0286	.0268	.0250	.0228	.0206
.025	.0196	.0192	.0186	.0180	.0174	.0166	.0160	.0152	.0146	.0136	.0128	.0118	.0108
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0202	-.0196	-.0192	-.0186	-.0180	-.0174	-.0168	-.0160	-.0154	-.0146	-.0138	-.0128	-.0118
-.050	-.0406	-.0396	-.0386	-.0374	-.0364	-.0352	-.0338	-.0326	-.0312	-.0296	-.0280	-.0264	-.0244
-.075	-.0608	-.0594	-.0580	-.0564	-.0548	-.0530	-.0512	-.0492	-.0472	-.0452	-.0428	-.0404	-.0378
-.100	-.0814	-.0796	-.0776	-.0756	-.0736	-.0712	-.0690	-.0664	-.0638	-.0612	-.0582	-.0550	-.0518
-.150	-.1238	-.1212	-.1184	-.1154	-.1124	-.1092	-.1060	-.1024	-.0988	-.0950	-.0908	-.0864	-.0818
-.200	-.1670	-.1636	-.1600	-.1564	-.1524	-.1484	-.1440	-.1398	-.1352	-.1304	-.1254	-.1200	-.1142
-.250	-.2108	-.2068	-.2026	-.1980	-.1936	-.1888	-.1838	-.1786	-.1732	-.1676	-.1614	-.1552	-.1484
-.300	-.2554	-.2508	-.2458	-.2408	-.2356	-.2302	-.2246	-.2186	-.2124	-.2060	-.1992	-.1920	-.1846
-.400	-.3460	-.3402	-.3344	-.3282	-.3218	-.3150	-.3084	-.3012	-.2938	-.2860	-.2780	-.2694	-.2606
-.500	-.4398	-.4332	-.4264	-.4194	-.4120	-.4044	-.3966	-.3884	-.3800	-.3712	-.3620	-.3524	-.3424
-.600	-.5332	-.5260	-.5184	-.5106	-.5026	-.4942	-.4856	-.4766	-.4674	-.4576	-.4476	-.4372	-.4264
-.700	-.6290	-.6212	-.6130	-.6046	-.5958	-.5868	-.5776	-.5680	-.5580	-.5476	-.5370	-.5258	-.5144
-.800	-.7260	-.7176	-.7090	-.7000	-.6906	-.6812	-.6714	-.6612	-.6506	-.6398	-.6284	-.6168	-.6048

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.50]$

$\frac{\Delta H}{q_o}$ \ p_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.7798	0.7578	0.7346	0.7100	0.6838	0.6560	0.6264	0.5946	0.5602	0.5228	0.4816	0.4358	0.3832	0.3212
.700	.6786	.6620	.6448	.6264	.6072	.5868	.5652	.5420	.5176	.4912	.4628	.4318	.3978	.3598
.600	.5810	.5686	.5556	.5420	.5278	.5128	.4970	.4802	.4624	.4436	.4234	.4018	.3786	.3532
.500	.4838	.4748	.4654	.4554	.4450	.4342	.4226	.4106	.3980	.3844	.3702	.3550	.3390	.3216
.400	.3874	.3810	.3744	.3672	.3600	.3522	.3442	.3356	.3268	.3174	.3076	.2972	.2862	.2744
.300	.2908	.2864	.2818	.2772	.2722	.2672	.2618	.2560	.2502	.2440	.2376	.2308	.2236	.2160
.250	.2426	.2392	.2356	.2318	.2280	.2238	.2196	.2152	.2106	.2058	.2006	.1952	.1896	.1838
.200	.1942	.1916	.1888	.1860	.1830	.1800	.1768	.1734	.1700	.1662	.1624	.1584	.1540	.1496
.150	.1456	.1438	.1418	.1398	.1378	.1356	.1332	.1308	.1284	.1258	.1230	.1202	.1172	.1140
.100	.0972	.0960	.0948	.0934	.0922	.0908	.0892	.0878	.0862	.0846	.0828	.0810	.0792	.0772
.075	.0728	.0720	.0712	.0702	.0692	.0682	.0672	.0660	.0648	.0636	.0624	.0610	.0598	.0582
.050	.0486	.0480	.0474	.0468	.0462	.0456	.0450	.0442	.0434	.0426	.0418	.0410	.0400	.0392
.025	.0246	.0242	.0240	.0236	.0234	.0230	.0226	.0224	.0220	.0216	.0212	.0208	.0204	.0198
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0244	-.0242	-.0238	-.0236	-.0232	-.0230	-.0226	-.0224	-.0220	-.0216	-.0212	-.0208	-.0204	-.0200
-.050	-.0486	-.0482	-.0476	-.0470	-.0466	-.0460	-.0452	-.0446	-.0440	-.0432	-.0426	-.0418	-.0410	-.0402
-.075	-.0730	-.0724	-.0716	-.0708	-.0698	-.0690	-.0680	-.0672	-.0662	-.0650	-.0640	-.0628	-.0618	-.0604
-.100	-.0978	-.0968	-.0958	-.0948	-.0936	-.0924	-.0912	-.0900	-.0888	-.0874	-.0860	-.0844	-.0830	-.0814
-.150	-.1462	-.1448	-.1434	-.1418	-.1402	-.1386	-.1370	-.1352	-.1332	-.1314	-.1294	-.1272	-.1250	-.1228
-.200	-.1946	-.1930	-.1910	-.1892	-.1872	-.1850	-.1828	-.1806	-.1782	-.1758	-.1732	-.1706	-.1678	-.1650
-.250	-.2434	-.2412	-.2390	-.2366	-.2342	-.2318	-.2292	-.2264	-.2236	-.2208	-.2176	-.2146	-.2112	-.2078
-.300	-.2922	-.2898	-.2872	-.2846	-.2818	-.2790	-.2760	-.2730	-.2696	-.2664	-.2628	-.2592	-.2554	-.2514
-.400	-.3898	-.3868	-.3836	-.3804	-.3770	-.3736	-.3698	-.3660	-.3622	-.3580	-.3538	-.3492	-.3446	-.3400
-.500	-.4870	-.4838	-.4800	-.4764	-.4726	-.4686	-.4644	-.4600	-.4554	-.4508	-.4458	-.4408	-.4354	-.4298
-.600	-.5842	-.5806	-.5766	-.5724	-.5682	-.5638	-.5590	-.5544	-.5492	-.5440	-.5386	-.5330	-.5272	-.5212
-.700	-.6812	-.6774	-.6730	-.6688	-.6642	-.6594	-.6544	-.6492	-.6438	-.6382	-.6324	-.6262	-.6200	-.6134
-.800	-.7780	-.7738	-.7694	-.7648	-.7598	-.7550	-.7496	-.7442	-.7384	-.7326	-.7264	-.7200	-.7134	-.7064

$\frac{\Delta H}{q_o}$ \ p_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2416	0.1138	------	------	------	------	------	------	------	------	------	------	------
.700	.3166	.2650	0.1994	0.0940	------	------	------	------	------	------	------	------	------
.600	.3254	.2944	.2588	.2168	0.1632	0.0768	------	------	------	------	------	------	------
.500	.3030	.2826	.2604	.2356	.2070	.1734	0.1306	0.0616	------	------	------	------	------
.400	.2620	.2486	.2342	.2184	.2012	.1820	.1600	.1340	0.1008	0.0474	------	------	------
.300	.2080	.1994	.1904	.1806	.1700	.1586	.1462	.1322	.1162	.0972	0.0732	0.0344	------
.250	.1776	.1710	.1640	.1564	.1484	.1398	.1304	.1200	.1086	.0954	.0800	.0602	0.0282
.200	.1450	.1400	.1348	.1294	.1234	.1172	.1102	.1028	.0948	.0856	.0752	.0630	.0474
.150	.1108	.1074	.1036	.0998	.0956	.0914	.0866	.0816	.0762	.0700	.0634	.0556	.0466
.100	.0752	.0730	.0706	.0682	.0658	.0630	.0602	.0570	.0538	.0502	.0462	.0418	.0366
.075	.0568	.0552	.0536	.0518	.0500	.0480	.0460	.0438	-.0414	.0388	.0360	.0328	.0292
.050	.0382	.0372	.0360	.0354	.0338	.0326	.0312	.0298	-.0282	.0266	.0248	.0228	.0206
.025	.0194	.0188	.0184	.0178	.0172	.0166	.0160	.0152	-.0146	.0138	.0128	.0120	.0108
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0196	-.0190	-.0186	-.0180	-.0176	-.0170	-.0164	-.0156	-.0150	-.0142	-.0136	-.0126	-.0118
-.050	-.0392	-.0384	-.0374	-.0364	-.0352	-.0342	-.0330	-.0318	-.0304	-.0290	-.0276	-.0260	-.0242
-.075	-.0592	-.0578	-.0564	-.0550	-.0534	-.0518	-.0502	-.0484	-.0464	-.0444	-.0424	-.0400	-.0374
-.100	-.0798	-.0780	-.0762	-.0742	-.0722	-.0702	-.0680	-.0656	-.0632	-.0606	-.0578	-.0548	-.0516
-.150	-.1204	-.1160	-.1154	-.1128	-.1098	-.1070	-.1038	-.1006	-.0972	-.0934	-.0896	-.0854	-.0810
-.200	-.1620	-.1588	-.1556	-.1522	-.1486	-.1448	-.1410	-.1368	-.1326	-.1280	-.1232	-.1180	-.1126
-.250	-.2042	-.2004	-.1966	-.1926	-.1884	-.1840	-.1792	-.1744	-.1694	-.1640	-.1584	-.1524	-.1460
-.300	-.2474	-.2432	-.2386	-.2340	-.2292	-.2242	-.2190	-.2134	-.2076	-.2016	-.1952	-.1886	-.1814
-.400	-.3350	-.3298	-.3242	-.3196	-.3128	-.3068	-.3004	-.2938	-.2868	-.2796	-.2720	-.2640	-.2556
-.500	-.4242	-.4182	-.4120	-.4056	-.3990	-.3920	-.3848	-.3772	-.3696	-.3614	-.3528	-.3438	-.3344
-.600	-.5148	-.5082	-.5014	-.4944	-.4870	-.4794	-.4716	-.4632	-.4546	-.4458	-.4366	-.4268	-.4166
-.700	-.6068	-.5996	-.5924	-.5848	-.5768	-.5688	-.5602	-.5514	-.5422	-.5328	-.5230	-.5126	-.5018
-.800	-.6994	-.6918	-.6842	-.6762	-.6680	-.6594	-.6504	-.6412	-.6316	-.6216	-.6112	-.6006	-.5892

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.55]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.7514	0.7316	0.7104	0.6880	0.6640	0.6386	0.6112	0.5818	0.5500	0.5154	0.4772	0.4346	0.3860	0.3292
.700	.6532	.6384	.6228	.6040	.5886	.5700	.5510	.5288	.5062	.4818	.4554	.4266	.3948	.3596
.600	.5582	.5472	.5356	.5234	.5104	.4968	.4824	.4670	.4506	.4332	.4146	.3944	.3728	.3492
.500	.4644	.4566	.4492	.4392	.4298	.4200	.4096	.3986	.3870	.3746	.3614	.3474	.3324	.3162
.400	.3712	.3654	.3596	.3534	.3468	.3400	.3326	.3250	.3168	.3084	.2992	.2896	.2794	.2686
.300	.2786	.2748	.2708	.2668	.2624	.2578	.2530	.2478	.2426	.2368	.2310	.2246	.2180	.2110
.250	.2318	.2290	.2258	.2226	.2192	.2156	.2118	.2078	.2036	.1992	.1946	.1898	.1846	.1790
.200	.1846	.1824	.1800	.1776	.1750	.1724	.1696	.1666	.1634	.1600	.1566	.1530	.1490	.1450
.150	.1390	.1376	.1358	.1342	.1322	.1304	.1284	.1262	.1240	.1216	.1192	.1166	.1138	.1110
.100	.0926	.0916	.0906	.0894	.0884	.0872	.0858	.0844	.0830	.0816	.0800	.0784	.0768	.0750
.075	.0692	.0686	.0678	.0670	.0662	.0652	.0644	.0634	.0624	.0612	.0602	.0590	.0578	.0564
.050	.0462	.0458	.0452	.0448	.0442	.0436	.0430	.0424	.0418	.0410	.0402	.0396	.0388	.0378
.025	.0232	.0230	.0228	.0226	.0222	.0220	.0218	.0214	.0210	.0208	.0204	.0200	.0196	.0192
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0232	-.0228	-.0228	-.0224	-.0222	-.0220	-.0216	-.0214	-.0210	-.0208	-.0204	-.0200	-.0196	-.0194
-.050	-.0464	-.0460	-.0456	-.0450	-.0446	-.0440	-.0436	-.0430	-.0424	-.0418	-.0410	-.0404	-.0396	-.0388
-.075	-.0698	-.0692	-.0684	-.0678	-.0670	-.0662	-.0654	-.0646	-.0638	-.0628	-.0620	-.0608	-.0598	-.0588
-.100	-.0924	-.0916	-.0908	-.0900	-.0890	-.0880	-.0870	-.0858	-.0848	-.0836	-.0824	-.0810	-.0796	-.0782
-.150	-.1390	-.1378	-.1366	-.1354	-.1340	-.1326	-.1312	-.1296	-.1280	-.1262	-.1246	-.1226	-.1206	-.1186
-.200	-.1854	-.1840	-.1824	-.1808	-.1790	-.1774	-.1754	-.1736	-.1714	-.1694	-.1670	-.1646	-.1622	-.1596
-.250	-.2312	-.2294	-.2276	-.2258	-.2238	-.2216	-.2194	-.2172	-.2146	-.2122	-.2094	-.2066	-.2038	-.2006
-.300	-.2774	-.2756	-.2736	-.2712	-.2690	-.2666	-.2640	-.2614	-.2586	-.2558	-.2526	-.2496	-.2462	-.2426
-.400	-.3694	-.3670	-.3646	-.3620	-.3592	-.3564	-.3534	-.3500	-.3468	-.3432	-.3396	-.3356	-.3316	-.3274
-.500	-.4612	-.4586	-.4558	-.4530	-.4498	-.4466	-.4430	-.4394	-.4356	-.4316	-.4274	-.4230	-.4184	-.4136
-.600	-.5526	-.5498	-.5468	-.5436	-.5402	-.5368	-.5330	-.5290	-.5248	-.5204	-.5158	-.5110	-.5060	-.5008
-.700	-.6438	-.6412	-.6380	-.6346	-.6310	-.6272	-.6234	-.6192	-.6146	-.6100	-.6052	-.6000	-.5946	-.5890
-.800	-.7348	-.7316	-.7286	-.7252	-.7214	-.7176	-.7134	-.7092	-.7046	-.6996	-.6946	-.6892	-.6836	-.6778

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2584	0.1556	------	------	------	------	------	------	------	------	------	------	------
.700	.3194	.2724	0.2138	0.1286	------	------	------	------	------	------	------	------	------
.600	.3232	.2944	.2614	.2230	0.1748	0.1052	------	------	------	------	------	------	------
.500	.2988	.2798	.2590	.2360	.2094	.1786	0.1400	0.0844	------	------	------	------	------
.400	.2570	.2444	.2310	.2164	.2002	.1822	.1618	.1380	0.1082	0.0652	------	------	------
.300	.2036	.1956	.1872	.1780	.1682	.1578	.1458	.1326	.1178	.1004	0.0788	0.0474	------
.250	.1732	.1672	.1606	.1536	.1462	.1380	.1292	.1196	.1088	.0968	.0824	.0646	0.0388
.200	.1408	.1362	.1314	.1262	.1208	.1148	.1084	.1016	.0940	.0856	.0760	.0648	.0508
.150	.1080	.1048	.1014	.0978	.0940	.0898	.0854	.0806	.0756	.0700	.0636	.0564	.0482
.100	.0730	.0710	.0690	.0668	.0644	.0618	.0592	.0562	.0532	.0498	.0460	.0418	.0372
.075	.0550	.0536	.0520	.0504	.0488	.0470	.0450	.0428	.0406	.0382	.0356	.0326	.0294
.050	.0370	.0360	.0350	.0340	.0330	.0318	.0306	.0292	.0278	.0262	.0246	.0226	.0206
.025	.0188	.0182	.0178	.0174	.0168	.0162	.0156	.0150	.0142	.0136	.0128	.0118	.0108
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0188	-.0184	-.0180	-.0176	-.0170	-.0166	-.0160	-.0154	-.0148	-.0140	-.0132	-.0126	-.0116
-.050	-.0380	-.0372	-.0364	-.0354	-.0344	-.0334	-.0324	-.0312	-.0300	-.0286	-.0272	-.0258	-.0240
-.075	-.0576	-.0564	-.0550	-.0538	-.0522	-.0508	-.0492	-.0476	-.0458	-.0438	-.0418	-.0396	-.0372
-.100	-.0768	-.0752	-.0734	-.0718	-.0700	-.0680	-.0660	-.0638	-.0616	-.0590	-.0566	-.0538	-.0508
-.150	-.1164	-.1142	-.1118	-.1094	-.1068	-.1042	-.1012	-.0982	-.0950	-.0916	-.0880	-.0842	-.0800
-.200	-.1570	-.1540	-.1512	-.1480	-.1446	-.1412	-.1376	-.1338	-.1298	-.1256	-.1210	-.1162	-.1112
-.250	-.1974	-.1940	-.1906	-.1868	-.1830	-.1790	-.1746	-.1702	-.1654	-.1606	-.1552	-.1496	-.1438
-.300	-.2390	-.2352	-.2310	-.2270	-.2224	-.2178	-.2130	-.2080	-.2026	-.1970	-.1910	-.1848	-.1782
-.400	-.3230	-.3182	-.3134	-.3084	-.3030	-.2976	-.2918	-.2856	-.2792	-.2726	-.2656	-.2580	-.2504
-.500	-.4086	-.4032	-.3978	-.3922	-.3860	-.3798	-.3732	-.3664	-.3590	-.3516	-.3436	-.3354	-.3268
-.600	-.4952	-.4894	-.4834	-.4772	-.4706	-.4638	-.4566	-.4492	-.4414	-.4332	-.4246	-.4156	-.4064
-.700	-.5832	-.5770	-.5706	-.5640	-.5570	-.5496	-.5422	-.5340	-.5258	-.5170	-.5080	-.4986	-.4888
-.800	-.6716	-.6652	-.6584	-.6516	-.6442	-.6366	-.6286	-.6202	-.6116	-.6026	-.5932	-.5834	-.5732

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.60]$

P_1 / $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.7212	0.7036	0.6848	0.6646	0.6428	0.6198	0.5948	0.5680	0.5386	0.5068	0.4716	0.4326	0.3880	0.3362
.700	.6062	.6132	.5994	.5846	.5688	.5518	.5338	.5146	.4936	.4712	.4470	.4204	.3912	.3586
.600	.5342	.5246	.5144	.5036	.4922	.4800	.4670	.4530	.4380	.4220	.4050	.3866	.3662	.3546
.500	.4438	.4370	.4296	.4218	.4136	.4048	.3956	.3856	.3750	.3638	.3518	.3388	.3252	.3102
.400	.3544	.3496	.3444	.3390	.3332	.3272	.3208	.3138	.3066	.2988	.2906	.2818	.2724	.2624
.300	.2652	.2620	.2588	.2552	.2514	.2474	.2432	.2386	.2338	.2288	.2234	.2178	.2118	.2054
.250	.2208	.2184	.2158	.2130	.2102	.2070	.2036	.2000	.1964	.1924	.1884	.1840	.1792	.1742
.200	.1762	.1744	.1726	.1704	.1682	.1658	.1634	.1608	.1580	.1550	.1520	.1486	.1450	.1414
.150	.1322	.1310	.1296	.1282	.1266	.1250	.1232	.1214	.1194	.1172	.1150	.1128	.1102	.1076
.100	.0880	.0872	.0864	.0854	.0844	.0834	.0824	.0812	.0800	.0786	.0774	.0758	.0744	.0726
.075	.0658	.0652	.0646	.0640	.0634	.0626	.0618	.0610	.0600	.0590	.0580	.0570	.0558	.0548
.050	.0440	.0436	.0432	.0428	.0424	.0418	.0414	.0408	.0402	.0396	.0390	.0382	.0376	.0368
.025	.0220	.0218	.0216	.0214	.0212	.0210	.0208	.0204	.0202	.0200	.0196	.0192	.0190	.0186
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0222	-.0220	-.0218	-.0216	-.0214	-.0212	-.0210	-.0206	-.2004	-.0202	-.0198	-.0194	-.0192	-.0188
-.050	-.0442	-.0438	-.0434	-.0430	-.0426	-.0422	-.0418	-.0412	-.0408	-.0402	-.0396	-.0390	-.0384	-.0376
-.075	-.0660	-.0654	-.0650	-.0644	-.0638	-.0632	-.0624	-.0618	-.0610	-.0602	-.0594	-.0584	-.0576	-.0566
-.100	-.0876	-.0870	-.0862	-.0856	-.0848	-.0840	-.0830	-.0822	-.0812	-.0802	-.0792	-.0780	-.0768	-.0754
-.150	-.1316	-.1306	-.1298	-.1288	-.1276	-.1266	-.1252	-.1240	-.1226	-.1212	-.1196	-.1180	-.1162	-.1144
-.200	-.1754	-.1744	-.1732	-.1720	-.1706	-.1692	-.1676	-.1660	-.1642	-.1624	-.1604	-.1584	-.1562	-.1540
-.250	-.2186	-.2174	-.2160	-.2144	-.2130	-.2112	-.2094	-.2076	-.2054	-.2034	-.2010	-.1986	-.1960	-.1934
-.300	-.2620	-.2606	-.2590	-.2574	-.2556	-.2538	-.2516	-.2494	-.2472	-.2448	-.2422	-.2394	-.2364	-.2334
-.400	-.3480	-.3464	-.3446	-.3426	-.3404	-.3382	-.3358	-.3332	-.3304	-.3276	-.3244	-.3212	-.3176	-.3140

P_1 / $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2730	0.1872	------	------	------	------	------	------	------	------	------	------	------
.700	.3216	.2788	0.2262	0.1552	------	------	------	------	------	------	------	------	------
.600	.3206	.2940	.2636	.2284	0.1854	0.1270	------	------	------	------	------	------	------
.500	.2942	.2766	.2572	.2358	.2114	.1832	0.1488	0.1018	------	------	------	------	------
.400	.2518	.2402	.2276	.2140	.1992	.1824	.1636	.1416	0.1150	0.0788	------	------	------
.300	.1984	.1912	.1834	.1748	.1658	.1558	.1448	.1328	.1190	.1030	0.0836	0.0572	------
.250	.1690	.1632	.1572	.1508	.1438	.1362	.1280	.1190	.1092	.0978	.0846	.0688	0.0470
.200	.1374	.1332	.1288	.1240	.1188	.1134	.1074	.1010	.0940	.0860	.0772	.0668	.0542
.150	.1050	.1020	.0988	.0956	.0920	.0882	.0842	.0798	.0750	.0696	.0638	.0572	.0496
.100	.0710	.0692	.0672	.0652	.0630	.0606	.0580	.0554	.0524	.0494	.0458	.0420	.0376
.075	.0534	.0522	.0508	.0492	.0476	.0460	.0422	.0422	.0402	.0380	.0354	.0328	.0296
.050	.0360	.0352	.0342	.0332	.0322	.0312	.0300	.0288	.0274	.0260	.0244	.0226	.0208
.025	.0182	.0178	.0172	.0168	.0164	.0158	.0152	.0146	.0140	.0134	.0126	.0118	.0108
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0184	-.0180	-.0176	-.0172	-.0118	-.0162	-.0158	-.0152	-.0146	-.0140	-.0132	-.0124	-.0116
-.050	-.0370	-.0362	-.0354	-.0346	-.0336	-.0326	-.0316	-.0306	-.0294	-.0282	-.0270	-.0256	-.0240
-.075	-.0556	-.0544	-.0532	-.0520	-.0508	-.0494	-.0480	-.0464	-.0448	-.0430	-.0410	-.0390	-.0368
-.100	-.0742	-.0728	-.0712	-.0696	-.0680	-.0662	-.0644	-.0624	-.0602	-.0580	-.0556	-.0530	-.0502
-.150	-.1126	-.1106	-.1084	-.1062	-.1038	-.1014	-.0986	-.0958	-.0928	-.0898	-.0864	-.0828	-.0790
-.200	-.1516	-.1490	-.1464	-.1434	-.1404	-.1374	-.1340	-.1306	-.1268	-.1228	-.1186	-.1142	-.1094
-.250	-.1904	-.1876	-.1844	-.1810	-.1774	-.1738	-.1698	-.1658	-.1614	-.1568	-.1520	-.1468	-.1412
-.300	-.2302	-.2268	-.2232	-.2194	-.2154	-.2112	-.2068	-.2022	-.1972	-.1920	-.1866	-.1808	-.1746
-.400	-.3102	-.3060	-.3018	-.2972	-.2924	-.2876	-.2822	-.2768	-.2710	-.2648	-.2584	-.2514	-.2442

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.65]$

P_1 $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.6892	0.6738	0.6574	0.6396	0.6202	0.5996	0.5772	0.5528	0.5262	0.4972	0.4650	0.4294	0.3890	0.3420
.700	.5976	.5864	.5744	.5616	.5476	.5326	.5164	.4990	.4802	.4598	.4376	.4134	.3866	.3568
.600	.5090	.5010	.4922	.4830	.4728	.4620	.4504	.4380	.4246	.4102	.3946	.3778	.3594	.3394
.500	.4222	.4164	.4104	.4038	.3966	.3890	.3808	.3720	.3624	.3524	.3416	.3298	.3172	.3036
.400	.3366	.3328	.3286	.3240	.3192	.3140	.3082	.3022	.2958	.2888	.2814	.2736	.2650	.2560
.300	.2516	.2492	.2464	.2436	.2404	.2370	.2334	.2294	.2252	.2208	.2160	.2110	.2054	.1996
.250	.2094	.2074	.2054	.2030	.2006	.1980	.1952	.1920	.1888	.1854	.1816	.1778	.1736	.1690
.200	.1672	.1658	.1642	.1626	.1608	.1588	.1566	.1544	.1520	.1494	.1466	.1438	.1406	.1372
.150	.1250	.1240	.1230	.1218	.1204	.1190	.1176	.1160	.1144	.1126	.1106	.1086	.1064	.1040
.100	.0832	.0826	.0820	.0812	.0804	.0796	.0788	.0778	.0766	.0756	.0744	.0730	.0716	.0702
.075	.0622	.0618	.0614	.0608	.0602	.0596	.0590	.0582	.0574	.0566	.0558	.0548	.0538	.0528
.050	.0416	.0412	.0410	.0406	.0402	.0398	.0394	.0390	.0384	.0380	.0374	.0368	.0362	.0354
.025	.0208	.0206	.0206	.0204	.0202	.0200	.0198	.0196	-.0194	.0190	.0188	.0186	.0182	.0178
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0206	-.0206	-.0204	-.0202	-.0200	-.0198	-.0198	-.0196	-.0192	-.0190	-.0188	-.0186	-.0182	-.0180
-.050	-.0418	-.0416	-.0412	-.0410	-.0406	-.0404	-.0400	-.0396	-.0392	-.0386	-.0382	-.0376	-.0370	-.0364
-.075	-.0620	-.0618	-.0614	-.0610	-.0604	-.0600	-.0594	-.0588	-.0582	-.0576	-.0568	-.0560	-.0552	-.0544
-.100	-.0828	-.0824	-.0820	-.0814	-.0808	-.0802	-.0794	-.0788	-.0778	-.0770	-.0762	-.0752	-.0740	-.0730
-.150	-.1240	-.1234	-.1228	-.1220	-.1212	-.1202	-.1192	-.1182	-.1170	-.1158	-.1146	-.1132	-.1116	-.1102
-.200	-.1650	-.1644	-.1636	-.1626	-.1616	-.1606	-.1592	-.1580	-.1566	-.1550	-.1534	-.1516	-.1498	-.1478
-.250	-.2060	-.2052	-.2042	-.2032	-.2020	-.2006	-.1992	-.1976	-.1960	-.1942	-.1924	-.1904	-.1882	-.1858
-.300	-.2468	-.2458	-.2448	-.2436	-.2422	-.2408	-.2392	-.2376	-.2356	-.2338	-.2316	-.2292	-.2268	-.2242
-.400	-.3276	-.3266	-.3256	-.3242	-.3228	-.3210	-.3192	-.3172	-.3152	-.3128	-.3102	-.3076	-.3046	-.3016

P_1 $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2858	0.2128	0.0878	------	------	------	------	------	------	------	------	------	------
.700	.3232	.2842	.2374	0.1766	0.0730	------	------	------	------	------	------	------	------
.600	.3174	.2928	.2652	.2332	.1948	0.1448	0.0598	------	------	------	------	------	------
.500	.2888	.2728	.2550	.2352	.2128	.1872	.1564	0.1162	0.0480	------	------	------	------
.400	.2460	.2354	.2240	.2114	.1976	.1822	.1650	.1450	.1210	0.0900	0.0372	------	------
.300	.1934	.1868	.1796	.1718	.1632	.1542	.1440	.1328	.1202	.1056	.0882	0.0656	0.0270
.250	.1642	.1590	.1536	.1476	.1412	.1342	.1266	.1184	.1092	.0988	.0868	.0724	.0538
.200	.1336	.1298	.1258	.1214	.1166	.1116	.1062	.1002	.0936	.0862	.0780	.0686	.0572
.150	.1016	.0990	.0960	.0930	.0898	.0862	.0826	.0784	.0740	.0692	.0638	.0576	.0506
.100	.0686	.0670	.0652	.0634	.0614	.0592	.0570	.0544	.0518	.0488	.0456	.0420	.0380
.075	.0518	.0506	.0492	.0478	.0464	.0448	.0432	.0414	.0396	.0374	.0352	.0326	.0298
.050	.0348	.0340	.0332	.0324	.0314	.0304	.0294	.0282	.0270	.0256	.0242	.0226	.0208
.025	.0176	.0172	.0168	.0164	.0158	.0154	.0148	.0144	.0138	.0132	.0124	.0116	.0108
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0176	-.0172	-.0168	-.0164	-.0160	-.0156	-.0152	-.0146	-.0140	-.0136	-.0128	-.0122	-.0114
-.050	-.0358	-.0352	-.0344	-.0336	-.0328	-.0320	-.0310	-.0300	-.0290	-.0278	-.0266	-.0252	-.0238
-.075	-.0534	-.0526	-.0514	-.0504	-.0492	-.0480	-.0466	-.0452	-.0436	-.0420	-.0402	-.0384	-.0364
-.100	-.0718	-.0704	-.0692	-.0678	-.0662	-.0646	-.0628	-.0610	-.0590	-.0570	-.0548	-.0524	-.0498
-.150	-.1084	-.1066	-.1048	-.1028	-.1006	-.0984	-.0960	-.0934	-.0906	-.0878	-.0846	-.0812	-.0778
-.200	-.1458	-.1434	-.1412	-.1386	-.1360	-.1330	-.1300	-.1268	-.1234	-.1198	-.1160	-.1118	-.1074
-.250	-.1834	-.1808	-.1780	-.1750	-.1718	-.1684	-.1650	-.1612	-.1572	-.1530	-.1486	-.1436	-.1386
-.300	-.2214	-.2184	-.2152	-.2118	-.2084	-.2046	-.2006	-.1964	-.1918	-.1872	-.1820	-.1766	-.1710
-.400	-.2982	-.2948	-.2910	-.2870	-.2828	-.2784	-.2736	-.2686	-.2634	-.2578	-.2518	-.2456	-.2390

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_0 = 0.70]$

$\frac{\Delta H}{q_0}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.6558	0.6430	0.6288	0.6134	0.5966	0.5784	0.5582	0.5364	0.5126	0.4864	0.4574	0.4250	0.3884	0.3464
.700	.5680	.5586	.5486	.5374	.5254	.5124	.4982	.4826	.4658	.4474	.4274	.4054	.3812	.3540
.600	.4830	.4764	.4694	.4614	.4528	.4436	.4334	.4224	.4106	.3976	.3836	.3684	.3518	.3336
.500	.4002	.3956	.3906	.3852	.3792	.3726	.3656	.3580	.3496	.3406	.3310	.3204	.3090	.2968
.400	.3180	.3150	.3118	.3082	.3040	.2998	.2950	.2898	.2842	.2782	.2716	.2644	.2568	.2486
.300	.2374	.2354	.2334	.2310	.2286	.2258	.2228	.2194	.2158	.2120	.2078	.2034	.1984	.1932
.250	.1976	.1962	.1946	.1928	.1908	.1888	.1864	.1838	.1810	.1780	.1748	.1714	.1676	.1636
.200	.1576	.1566	.1554	.1540	.1528	.1510	.1494	.1474	.1454	.1432	.1408	.1382	.1356	.1326
.150	.1178	.1172	.1164	.1156	.1146	.1134	.1122	.1110	.1096	.1080	.1064	.1046	.1026	.1006
.100	.0782	.0778	.0774	.0768	.0762	.0756	.0748	.0240	.0732	.0722	.0712	.0700	.0688	.0676
.075	.0588	.0586	.0582	.0578	.0574	.0568	.0564	.0558	.0552	.0544	.0538	.0530	.0520	.0512
.050	.0392	.0390	.0388	.0384	.0382	.0378	.0376	.0372	.0368	.0364	.0358	.0354	.0348	.0342
.025	.0194	.0192	.0192	.0190	.0190	.0188	.0186	.0184	.0182	.0180	.0178	.0176	.0174	.0170
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0198	-.0198	-.0196	-.0196	-.0194	-.0192	-.0192	-.0190	-.0188	-.0186	-.0184	-.0182	-.0178	-.0176
-.050	-.0388	-.0386	-.0386	-.0384	-.0380	-.0378	-.0376	-.0372	-.0368	-.0364	-.0360	-.0356	-.0352	-.0346
-.075	-.0584	-.0582	-.0580	-.0578	-.0574	-.0570	-.0566	-.0562	-.0556	-.0552	-.0546	-.0538	-.0532	-.0524
-.100	-.0780	-.0776	-.0774	-.0770	-.0766	-.0762	-.0756	-.0650	-.0744	-.0736	-.0730	-.0720	-.0712	-.0702
-.150	-.1164	-.1160	-.1156	-.1152	-.1146	-.1140	-.1132	-.1124	-.1116	-.1106	-.1096	-.1084	-.1072	-.1058
-.200	-.1548	-.1544	-.1540	-.1534	-.1526	-.1518	-.1510	-.1500	-.1490	-.1478	-.1464	-.1450	-.1434	-.1418
-.250	-.1930	-.1926	-.1922	-.1916	-.1908	-.1898	-.1888	-.1878	-.1864	-.1850	-.1836	-.1818	-.1800	-.1782
-.300	-.2310	-.2306	-.2300	-.2294	-.2286	-.2276	-.2264	-.2252	-.2238	-.2224	-.2206	-.2188	-.2168	-.2146

$\frac{\Delta H}{q_0}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2964	0.2336	0.1418	------	------	------	------	------	------	------	------	------	------
.700	.3236	.2884	.2464	0.1946	0.1180	------	------	------	------	------	------	------	------
.600	.3136	.2912	.2658	.2370	.2029	0.1598	0.0970	------	------	------	------	------	------
.500	.2832	.2684	.2520	.2342	.2140	.1906	.1630	0.1284	0.0780	------	------	------	------
.400	.2398	.2302	.2194	.2082	.1956	.1814	.1658	.1476	.1262	0.0994	0.0604	------	------
.300	.1876	.1816	.1748	.1680	.1602	.1518	.1426	.1324	.1208	.1076	.0920	0.0724	0.0440
.250	.1594	.1546	.1496	.1442	.1384	.1320	.1250	.1174	.1090	.0994	.0886	.0758	.0596
.200	.1294	.1260	.1222	.1182	.1140	.1094	.1042	.0988	.0928	.0860	.0786	.0700	.0598
.150	.0984	.0960	.0934	.0906	.0878	.0846	.0810	.0774	.0732	.0688	.0638	.0582	.0518
.100	.0662	.0648	.0632	.0614	.0596	.0578	.0556	.0534	.0508	.0482	.0452	.0420	.0382
.075	.0502	.0490	.0478	.0466	.0454	.0440	.0424	.0408	.0390	.0370	.0350	.0326	.0300
.050	.0336	.0328	.0322	.0314	.0306	.0296	.0286	.0276	.0264	.0252	.0238	.0224	.0208
.025	.0168	.0164	.0160	.0156	.0152	.0148	.0144	.0138	.0134	.0128	.0122	.0114	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0174	-.0170	-.0166	-.0164	-.0160	-.0156	-.0150	-.0146	-.0140	-.0136	-.0130	-.0124	-.0116
-.050	-.0342	-.0336	-.0328	-.0322	-.0314	-.0306	-.0298	-.0290	-.0280	-.0270	-.0258	-.0246	-.0234
-.075	-.0516	-.0508	-.0498	-.0488	-.0478	-.0466	-.0454	-.0442	-.0428	-.0412	-.0396	-.0380	-.0360
-.100	-.0692	-.0680	-.0668	-.0656	-.0642	-.0628	-.0612	-.0596	-.0578	-.0558	-.0538	-.0516	-.0492
-.150	-.1044	-.1028	-.1010	-.0992	-.0974	-.0954	-.0932	-.0908	-.0884	-.0856	-.0828	-.0798	-.0764
-.200	-.1400	-.1380	-.1358	-.1338	-.1314	-.1288	-.1260	-.1232	-.1200	-.1168	-.1132	-.1094	-.1054
-.250	-.1760	-.1738	-.1712	-.1688	-.1660	-.1630	-.1598	-.1564	-.1528	-.1490	-.1448	-.1404	-.1358
-.300	-.2122	-.2096	-.2068	-.2040	-.2008	-.1976	-.1940	-.1902	-.1862	-.1818	-.1772	-.1722	-.1670

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_0 = 0.75]$

P_1 $\frac{\Delta H}{q_0}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.6212	0.6104	0.5988	0.5858	0.5716	0.5558	0.5382	0.5190	0.4978	0.4746	0.4486	0.4196	0.3868	0.3492
.700	.5370	.5298	.5216	.5124	.5022	.4912	.4788	.4654	.4504	.4342	.4164	.3966	.3748	.3504
.600	.4552	.4502	.4446	.4382	.4312	.4234	.4148	.4052	.3950	.3836	.3712	.3578	.3428	.3264
.500	.3770	.3736	.3700	.3656	.3608	.3554	.3494	.3430	.3358	.3280	.3196	.3102	.3002	.2890
.400	.2994	.2974	.2950	.2922	.2890	.2854	.2816	.2772	.2724	.2672	.2616	.2554	.2486	.2414
.300	.2234	.2220	.2206	.2190	.2170	.2148	.2124	.2098	.2068	.2034	.1998	.1960	.1918	.1872
.250	.1854	.1844	.1834	.1822	.1806	.1790	.1772	.1752	.1728	.1704	.1676	.1646	.1614	.1578
.200	.1478	.1472	.1464	.1456	.1446	.1434	.1420	.1406	.1388	.1370	.1350	.1328	.1304	.1278
.150	.1106	.1102	.1098	.1090	.1084	.1076	.1068	.1056	.1046	.1032	.1018	.1004	.0988	.0970
.100	.0734	.0732	.0730	.0726	.0722	.0716	.0712	.0706	.0698	.0690	.0682	.0672	.0662	.0652
.075	.0550	.0548	.0546	.0544	.0540	.0538	.0534	.0530	.0524	.0518	.0512	.0506	.0498	.0490
.050	.0364	.0364	.0362	.0362	.0360	.0358	.0354	.0352	.0348	.0346	.0342	.0336	.0332	.0328
.025	.0182	.0180	.0180	.0180	.0178	.0178	.0176	.0176	.0174	.0172	.0170	.0168	.0166	.0164
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0184	-.0184	-.0182	-.0182	-.0182	-.0180	-.0180	-.0178	-.0176	-.0176	-.0174	-.0172	-.0170	-.0168
-.050	-.0366	-.0364	-.0364	-.0362	-.0362	-.0360	-.0358	-.0356	-.0352	-.0350	-.0346	-.0342	-.0338	-.0334
-.075	-.0546	-.0546	-.0546	-.0544	-.0542	-.0540	-.0536	-.0534	-.0530	-.0526	-.0520	-.0516	-.0510	-.0502
-.100	-.0728	-.0728	-.0726	-.0724	-.0722	-.0720	-.0716	-.0712	-.0706	-.0702	-.0694	-.0688	-.0680	-.0672
-.150	-.1086	-.1086	-.1084	-.1082	-.1078	-.1074	-.1070	-.1064	-.1058	-.1050	-.1042	-.1034	-.1024	-.1012
-.200	-.1444	-.1444	-.1444	-.1442	-.1438	-.1434	-.1428	-.1422	-.1414	-.1404	-.1394	-.1384	-.1370	-.1356
-.250	-.1800	-.1800	-.1800	-.1798	-.1794	-.1790	-.1784	-.1776	-.1768	-.1758	-.1746	-.1732	-.1718	-.1702

P_1 $\frac{\Delta H}{q_0}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.3050	0.2508	0.1780	------	------	------	------	------	------	------	------	------	------
.700	.3228	.2914	.2544	0.2092	0.1484	------	------	------	------	------	------	------	------
.600	.3084	.2882	.2654	.2396	.2092	0.1718	0 .1218	------	------	------	------	------	------
.500	.2768	.2636	.2490	.2324	.2192	.1932	.1686	0.1384	0.0982	------	------	------	------
.400	.2334	.2246	.2152	.2048	.1932	.1804	.1662	.1498	.1308	0.1074	0.0760	------	------
.300	.1822	.1766	.1708	.1644	.1574	.1498	.1412	.1318	.1214	.1094	.0954	0.0784	0.0556
.250	.1540	.1498	.1454	.1406	.1352	.1294	.1232	.1162	.1084	.0998	.0900	.0784	.0644
.200	.1250	.1220	.1186	.1152	.1112	.1070	.1024	.0974	.0918	.0858	.0788	.0712	.0620
.150	.0950	.0928	.0906	.0880	.0854	.0826	.0794	.0760	.0722	.0682	.0636	.0586	.0528
.100	.0640	.0626	.0612	.0598	.0580	.0564	.0544	.0524	.0500	.0476	.0448	.0418	.0386
.075	.0482	.0472	.0462	.0452	.0440	.0428	.0414	.0398	.0382	.0364	.0346	.0324	.0300
.050	.0322	.0316	.0310	.0302	.0294	.0286	.0278	.0268	.0258	.0246	.0234	.0222	.0206
.025	.0160	.0158	.0156	.0152	.0148	.0144	.0140	.0136	.0130	.0126	.0120	.0114	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0164	-.0162	-.0160	-.0156	-.0152	-.0150	-.0146	-.0140	-.0136	-.0132	-.0126	-.0120	-.0114
-.050	-.0330	-.0324	-.0318	-.0312	-.0306	-.0300	-.0292	-.0284	-.0274	-.0266	-.0256	-.0244	-.0232
-.075	-.0496	-.0488	-.0480	-.0472	-.0462	-.0452	-.0442	-.0430	-.0418	-.0404	-.0388	-.0372	-.0356
-.100	-.0664	-.0654	-.0644	-.0632	-.0620	-.0608	-.0594	-.0578	-.0562	-.0546	-.0526	-.0506	-.0484
-.150	-.1000	-.0986	-.0972	-.0956	-.0940	-.0922	-.0902	-.0882	-.0858	-.0834	-.0808	-.0780	-.0750
-.200	-.1342	-.1326	-.1308	-.1288	-.1268	-.1244	-.1220	-.1194	-.1166	-.1136	-.1104	-.1070	-.1032
-.250	-.1684	-.1666	-.1646	-.1622	-.1598	-.1572	-.1544	-.1514	-.1482	-.1446	-.1410	-.1370	-.1326

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.80]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.5854	0.5776	0.5680	0.5576	0.5456	0.5322	0.5172	0.5008	0.4822	0.4616	0.4386	0.4128	0.3838	0.3504
.700	.5056	.5002	.4938	.4866	.4784	.4692	.4588	.4472	.4344	.4202	.4044	.3868	.3676	.3458
.600	.4288	.4252	.4212	.4162	.4106	.4042	.3972	.3892	.3802	.3706	.3598	.3478	.3346	.3200
.500	.3538	.3518	.3490	.3458	.3422	.3380	.3332	.3278	.3218	.3152	.3078	.2998	.2908	.2810
.400	.2808	.2796	.2780	.2760	.2738	.2712	.2680	.2646	.2606	.2564	.2514	.2462	.2402	.2338
.300	.2090	.2084	.2076	.2064	.2052	.2036	.2018	.1996	.1972	.1946	.1916	.1882	.1846	.1806
.250	.1734	.1732	.1726	.1718	.1710	.1698	.1684	.1668	.1650	.1630	.1608	.1582	.1554	.1524
.200	.1384	.1382	.1378	.1374	.1366	.1358	.1348	.1338	.1324	.1310	.1294	.1276	.1254	.1232
.150	.1030	.1030	.1028	.1026	.1020	.1016	.1010	.1002	.0994	.0984	.0972	.0960	.0946	.0930
.100	.0684	.0684	.0684	.0682	.0680	.0676	.0672	.0668	.0662	.0656	.0650	.0642	.0634	.0624
.075	.0514	.0514	.0512	.0512	.0510	.0508	.0506	.0502	.0498	.0494	.0490	.0484	.0478	.0472
.050	.0340	.0340	.0340	.0340	.0338	.0338	.0336	.0334	.0332	.0328	.0326	.0322	.0318	.0314
.025	.0170	.0170	.0170	.0168	.0168	.0168	.0168	.0166	.0166	.0164	.0162	.0160	.0158	.0156
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0172	-.0172	-.0172	-.0172	-.0170	-.0170	-.0170	-.0168	-.0168	-.0166	-.0166	-.0164	-.0162	-.0160
-.050	-.0336	-.0336	-.0336	-.0336	-.0336	-.0334	-.0334	-.0332	-.0330	-.0328	-.0326	-.0322	-.0320	-.0316
-.075	-.0506	-.0508	-.0508	-.0508	-.0506	-.0506	-.0504	-.0502	-.0500	-.0496	-.0494	-.0488	-.0484	-.0480
-.100	-.0676	-.0676	-.0676	-.0676	-.0676	-.0674	-.0672	-.0670	-.0668	-.0664	-.0658	-.0654	-.0648	-.0642
-.150	-.1010	-.1012	-.1012	-.1012	-.1012	-.1010	-.1008	-.1006	-.1002	-.0996	-.0990	-.0982	-.0976	-.0966
-.200	-.1342	-.1344	-.1346	-.1348	-.1348	-.1346	-.1344	-.1340	-.1336	-.1330	-.1324	-.1314	-.1304	-.1294

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.3116	0.2652	0.2046	0.1110	------	------	------	------	------	------	------	------	------
.700	.3212	.2930	.2604	.2216	0.1708	0.0926	------	------	------	------	------	------	------
.600	.3036	.2856	.2652	.2418	.2148	.1826	0.1408	0.0764	------	------	------	------	------
.500	.2702	.2582	.2450	.2304	.2138	.1950	.1732	.1472	0.1134	0.0614	------	------	------
.400	.2268	.2190	.2104	.2010	.1906	.1792	.1662	.1516	.1346	.1142	0.0880	0.0478	------
.300	.1762	.1714	.1660	.1604	.1540	.1470	.1394	.1310	.1214	.1106	.0982	.0834	0.0642
.250	.1490	.1454	.1414	.1370	.1322	.1270	.1212	.1150	.1080	.1002	.0912	.0810	.0686
.200	.1208	.1182	.1152	.1120	.1084	.1046	.1006	.0960	.0910	.0854	.0792	.0722	.0640
.150	.0914	.0896	.0876	.0854	.0830	.0804	.0776	.0744	.0710	.0674	.0632	.0586	.0534
.100	.0614	.0604	.0592	.0578	.0564	.0548	.0530	.0512	.0490	.0468	.0444	.0416	.0386
.075	.0464	.0456	.0448	.0438	.0426	.0416	.0404	.0390	.0374	.0358	.0342	.0322	.0300
.050	.0310	.0304	.0298	.0292	.0286	.0278	.0270	.0262	.0252	.0242	.0232	.0220	.0206
.025	.0154	.0152	.0150	.0146	.0144	.0140	.0136	.0132	.0128	.0122	.0118	.0112	.0106
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0158	-.0156	-.0154	-.0150	-.0148	-.0144	-.0140	-.0138	-.0134	-.0128	-.0124	-.0118	-.0112
-.050	-.0312	-.0308	-.0304	-.0298	-.0292	-.0286	-.0280	-.0272	-.0264	-.0256	-.0246	-.0236	-.0226
-.075	-.0474	-.0468	-.0460	-.0452	-.0444	-.0436	-.0426	-.0416	-.0404	-.0392	-.0378	-.0364	-.0348
-.100	-.0634	-.0626	-.0618	-.0608	-.0598	-.0586	-.0574	-.0560	-.0546	-.0530	-.0512	-.0494	-.0474
-.150	-.0956	-.0946	-.0932	-.0920	-.0904	-.0890	-.0872	-.0854	-.0834	-.0812	-.0788	-.0762	-.0734
-.200	-.1282	-.1268	-.1254	-.1236	-.1218	-.1200	-.1178	-.1154	-.1130	-.1104	-.1074	-.1042	-.1010

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.85]$

P_1 $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.5490	0.5434	0.5366	0.5284	0.5188	0.5078	0.4954	0.4814	0.4654	0.4476	0.4276	0.4050	0.3794	0.3500
.700	.4732	.4698	.4654	.4600	.4538	.4464	.4380	.4284	.4174	.4052	.3916	.3764	.3592	.3400
.600	.4008	.3988	.3962	.3928	.3888	.3838	.3782	.3718	.3644	.3560	.3468	.3364	.3248	.3120
.500	.3302	.3292	.3278	.3258	.3232	.3202	.3166	.3122	.3074	.3018	.2958	.2888	.2810	.2724
.400	.2616	.2612	.2606	.2596	.2580	.2562	.2540	.2514	.2482	.2448	.2400	.2362	.2312	.2256
.300	.1944	.1944	.1942	.1938	.1930	.1920	.1908	.1894	.1876	.1854	.1830	.1802	.1772	.1738
.250	.1612	.1614	.1614	.1610	.1606	.1600	.1590	.1580	.1566	.1550	.1532	.1512	.1488	.1464
.200	.1284	.1288	.1288	.1286	.1284	.1280	.1274	.1266	.1256	.1246	.1232	.1218	.1202	.1182
.150	.0958	.0960	.0962	.0962	.0960	.0958	.0954	.0950	.0942	.0936	.0928	.0918	.0906	.0894
.100	.0636	.0638	.0640	.0640	.0640	.0638	.0636	.0634	.0630	.0626	.0620	.0614	.0608	.0600
.075	.0476	.0476	.0478	.0478	.0478	.0478	.0476	.0474	.0472	.0468	.0464	.0460	.0456	.0450
.050	.0316	.0318	.0318	.0318	.0318	.0318	.0318	.0316	.0314	.0312	.0310	.0308	.0304	.0302
.025	.0154	.0156	.0156	.0156	.0156	.0156	.0156	.0156	.0154	.0154	.0152	.0152	.0150	.0148
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0158	-.0160	-.0160	-.0160	-.0160	-.0160	-.0160	-.0160	-.0160	-.0158	-.0158	-.0156	-.0154	-.0154
-.050	-.0316	-.0316	-.0318	-.0318	-.0318	-.0318	-.0318	-.0318	-.0316	-.0316	-.0314	-.0312	-.0308	-.0306
-.075	-.0472	-.0474	-.0476	-.0476	-.0476	-.0476	-.0476	-.0476	-.0474	-.0472	-.0470	-.0468	-.0464	-.0460
-.100	-.0628	-.0630	-.0632	-.0634	-.0634	-.0636	-.0634	-.0634	-.0632	-.0630	-.0628	-.0624	-.0620	-.0614
-.150	-.0934	-.0940	-.0944	-.0946	-.0948	-.0950	-.0950	-.0948	-.0946	-.094[illegible]	-.0940	-.0936	-.0930	-.0922
-.200	-.1242	-.1250	-.1254	-.1260	-.1262	-.1264	-.1264	-.1264	-.1262	-.1260	-.1256	-.1250	-.1244	-.1236

P_1 $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.3160	0.2756	0.2254	0.1558	------	------	------	------	------	------	------	------	------
.700	.3182	.2936	.2648	.2308	0.1886	0.1304	------	------	------	------	------	------	------
.600	.2976	.2816	.2634	.2428	.2190	.1908	.1558	0.1076	------	------	------	------	------
.500	.2630	.2524	.2406	.2274	.2128	.1960	.1766	.1538	0.1256	0.0868	------	------	------
.400	.2194	.2126	.2052	.1968	.1874	.1772	.1656	.1524	.1374	.1196	0.0976	0.0674	------
.300	.1700	.1658	.1612	.1560	.1504	.1442	.1374	.1298	.1212	.1116	.1006	.0874	0.0714
.250	.1434	.1402	.1368	.1328	.1286	.1240	.1188	.1132	.1068	.0998	.0918	.0828	.0720
.200	.1162	.1138	.1112	.1084	.1054	.1020	.0984	.0942	.0896	.0846	.0790	.0728	.0656
.150	.0878	.0864	.0846	.0826	.0806	.0782	.0758	.0730	.0698	.0666	.0628	.0586	.0540
.100	.0592	.0582	.0572	.0560	.0546	.0532	.0518	.0500	.0482	.0462	.0436	.0414	.0388
.075	.0444	.0438	.0430	.0422	.0412	.0402	.0392	.0380	.0366	.0352	.0336	.0318	.0298
.050	.0298	.0292	.0288	.0282	.0276	.0270	.0264	.0256	.0248	.0238	.0228	.0218	.0204
.025	.0146	.0144	.0142	.0140	.0136	.0134	.0130	.0128	.0124	.0118	.0114	.0108	.0104
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0152	-.0150	-.0148	-.0146	-.0142	-.0140	-.0136	-.0134	-.0130	-.0126	-.0122	-.0116	-.0112
-.050	-.0302	-.0300	-.0296	-.0290	-.0286	-.0280	-.0274	-.0268	-.0260	-.0254	-.0244	-.0236	-.0226
-.075	-.0454	-.0450	-.0444	-.0438	-.0430	-.0422	-.0414	-.0404	-.0394	-.0384	-.0372	-.0358	-.0344
-.100	-.0608	-.0602	-.0594	-.0586	-.0576	-.0566	-.0556	-.0544	-.0532	-.0518	-.0502	-.0484	-.0466
-.150	-.0914	-.0906	-.0896	-.0884	-.0872	-.0858	-.0844	-.0826	-.0810	-.0788	-.0768	-.0746	-.0720
-.200	-.1226	-.1214	-.1202	-.1188	-.1174	-.1158	-.1138	-.1118	-.1096	-.1072	-.1046	-.1018	-.0988

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

$[M_o = 0.90]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.5122	0.5088	0.5044	0.4986	0.4914	0.4828	0.4730	0.4614	0.4480	0.4328	.4154	0.3958	0.3736	0.3480
.700	.4408	.4394	.4368	.4334	.4290	.4234	.4168	.4090	.4002	.3900	.3782	.3652	.3502	.3334
.600	.3726	.3722	.3712	.3692	.3666	.3632	.3590	.3538	.3480	.3412	.3334	.3246	.3146	.3034
.500	.3066	.3070	.3066	.3058	.3044	.3024	.2998	.2966	.2928	.2884	.2834	.2776	.2710	.2636
.400	.2424	.2430	.2432	.2430	.2426	.2414	.2400	.2382	.2360	.2332	.2300	.2264	.2222	.2174
.300	.1798	.1806	.1810	.1812	.1810	.1806	.1800	.1790	.1778	.1762	.1744	.1722	.1696	.1668
.250	.1492	.1500	.1504	.1506	.1506	.1504	.1500	.1494	.1486	.1474	.1460	.1444	.1426	.1404
.200	.1190	.1198	.1202	.1204	.1206	.1204	.1204	.1198	.1192	.1184	.1176	.1164	.1150	.1136
.150	.0886	.0892	.0896	.0898	.0900	.0900	.0898	.0896	.0892	.0888	.0882	.0874	.0866	.0856
.100	.0588	.0590	.0594	.0596	.0598	.0598	.0598	.0596	.0594	.0592	.0588	.0584	.0578	.0572
.075	.0440	.0442	.0444	.0446	.0448	.0448	.0448	.0448	.0446	.0444	.0442	.0440	.0436	.0432
.050	.0292	.0294	.0296	.0296	.0298	.0298	.0298	.0298	.0298	.0296	.0294	.0292	.0290	.0288
.025	.0142	.0144	.0144	.0146	.0146	.0146	.0146	.0146	.0146	.0146	.0144	.0144	.0142	.0142
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0146	-.0148	-.0148	-.0150	-.0150	-.0150	-.0150	-.0150	-.0150	-.0150	-.0150	-.0148	-.0148	-.0146
-.050	-.0290	-.0292	-.0294	-.0296	-.0298	-.0298	-.0298	-.0298	-.0298	-.0298	-.0296	-.0296	-.0294	-.0292
-.075	-.0434	-.0438	-.0440	-.0444	-.0444	-.0446	-.0448	-.0448	-.0448	-.0446	-.0444	-.0444	-.0440	-.0438
-.100	-.0578	-.0582	-.0586	-.0590	-.0592	-.0594	-.0596	-.0596	-.0596	-.0594	-.0594	-.0590	-.0588	-.0584
-.150	-.0864	-.0872	-.0878	-.0882	-.0888	-.0890	-.0892	-.0894	-.0894	-.0894	-.0892	-.0890	-.0886	-.0880
-.200	-.1142	-.1152	-.1160	-.1168	-.1174	-.1178	-.1182	-.1184	-.1186	-.1186	-.1184	-.1182	-.1178	-.1172

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0:35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.3184	0.2836	0.2412	0.1862	0.0994	------	------	------	------	------	------	------	------
.700	.3144	.2928	.2676	.2382	.2026	0.1562	0.0834	------	------	------	------	------	------
.600	.2908	.2766	.2608	.2426	.2216	.1972	.1676	0.1292	0.0690	------	------	------	------
.500	.2554	.2462	.2358	.2242	.2110	.1962	.1792	.1594	.1352	0.1042	0.0556	------	------
.400	.2122	.2062	.1996	.1922	.1840	.1748	.1646	.1528	.1396	.1240	.1052	0.0810	0.0432
.300	.1636	.1600	.1560	.1514	.1466	.1410	.1350	.1282	.1206	.1120	.1022	.0908	.0770
.250	.1380	.1354	.1322	.1290	.1252	.1210	.1164	.1114	.1058	.0994	.0924	.0842	.0748
.200	.1118	.1098	.1076	.1052	.1026	.0994	.0962	.0924	.0884	.0840	.0790	.0734	.0668
.150	.0844	.0830	.0816	.0800	.0780	.0760	.0738	.0714	.0686	.0656	.0622	.0584	.0542
.100	.0566	.0558	.0550	.0538	.0528	.0516	.0502	.0488	.0470	.0452	.0432	.0410	.0386
.075	.0426	.0420	.0414	.0406	.0398	.0390	.0380	.0370	.0358	.0344	.0330	.0316	.0298
.050	.0284	.0282	.0278	.0272	.0268	.0262	.0256	.0250	.0242	.0234	.0224	.0214	.0204
.025	.0140	.0138	.0136	.0134	.0132	.0130	.0126	.0124	.0120	.0116	.0112	.0108	.0102
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0146	-.0144	-.0142	-.0140	-.0138	-.0136	-.0132	-.0130	-.0126	-.0122	-.0118	-.0114	-.0110
-.050	-.0290	-.0286	-.0284	-.0280	-.0276	-.0270	-.0266	-.0260	-.0254	-.0246	-.0240	-.0230	-.0222
-.075	-.0434	-.0430	-.0426	-.0420	-.0414	-.0408	-.0400	-.0392	-.0382	-.0372	-.0362	-.0350	-.0338
-.100	-.0580	-.0574	-.0568	-.0562	-.0554	-.0546	-.0536	-.0526	-.0514	-.0502	-.0488	-.0474	-.0458
-.150	-.0874	-.0868	-.0860	-.0850	-.0840	-.0828	-.0816	-.0802	-.0786	-.0768	-.0750	-.0730	-.0706
-.200	-.1166	-.1158	-.1148	-.1136	-.1124	-.1110	-.1094	-.1076	-.1058	-.1036	-.1014	-.0988	-.0962

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE I - Continued

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Continued

[$M_o = 0.95$]

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.4752	0.4744	0.4720	0.4686	0.4636	0.4574	0.4498	0.4406	0.4296	0.4170	0.4024	0.3858	0.3666	0.3446
.700	.4086	.4090	.4082	.4066	.4040	.4002	.3954	.3894	.3824	.3740	.3644	.3532	.3406	.3260
.600	.3448	.3458	.3460	.3456	.3444	.3424	.3396	.3358	.3314	.3260	.3196	.3124	.3040	.2944
.500	.2834	.2848	.2856	.2858	.2856	.2846	.2832	.2810	.2784	.2750	.2710	.2662	.2608	.2546
.400	.2238	.2252	.2262	.2268	.2270	.2268	.2262	.2252	.2236	.2218	.2194	.2164	.2130	.2090
.300	.1658	.1672	.1682	.1688	.1694	.1696	.1694	.1690	.1682	.1672	.1660	.1642	.1622	.1600
.250	.1374	.1386	.1396	.1404	.1408	.1410	.1410	.1408	.1404	.1398	.1388	.1376	.1362	.1344
.200	.1090	.1100	.1108	.1116	.1120	.1122	.1124	.1122	.1120	.1116	.1110	.1102	.1092	.1080
.150	.0816	.0822	.0830	.0836	.0840	.0842	.0844	.0844	.0842	.0840	.0836	.0832	.0824	.0816
.100	.0538	.0544	.0548	.0552	.0556	.0558	.0560	.0560	.0560	.0558	.0556	.0554	.0550	.0546
.075	.0404	.0408	.0412	.0416	.0418	.0420	.0420	.0422	.0420	.0420	.0420	.0418	.0414	.0412
.050	.0266	.0270	.0272	.0274	.0276	.0276	.0278	.0278	.0278	.0278	.0278	.0276	.0274	.0272
.025	.0134	.0134	.0136	.0136	.0138	.0138	.0138	.0140	.0140	.0140	.0138	.0138	.0138	.0136
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0134	-.0136	-.0138	-.0138	-.0140	-.0140	-.0140	-.0142	-.0142	-.0142	-.0142	-.0140	-.0140	-.0140
-.050	-.0266	-.0270	-.0272	-.0274	-.0276	-.0278	-.0280	-.0280	-.0280	-.0280	-.0280	-.0280	-.0278	-.0278
-.075	-.0398	-.0402	-.0406	-.0410	-.0414	-.0416	-.0418	-.0420	-.0420	-.0420	-.0420	-.0420	-.0418	-.0416
-.100	-.0526	-.0532	-.0538	-.0544	-.0548	-.0550	-.0554	-.0556	-.0556	-.0558	-.0558	-.0556	-.0554	-.0552
-.150	-.0790	-.0800	-.0808	-.0816	-.0822	-.0828	-.0832	-.0836	-.0838	-.0840	-.0840	-.0840	-.0838	-.0834

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.3190	0.2892	0.2532	0.2084	0.1466	------	------	------	------	------	------	------	------
.700	.3096	.2908	.2688	.2434	.2132	0.1754	0.1232	------	------	------	------	------	------
.600	.2834	.2712	.2572	.2414	.2232	.2018	.1766	0.1452	0.1020	------	------	------	------
.500	.2474	.2394	.2304	.2202	.2088	.1958	.1808	.1636	.1430	0.1174	0.0824	------	------
.400	.2046	.1996	.1938	.1874	.1802	.1720	.1630	.1528	.1410	.1274	.1114	0.0914	0.0642
.300	.1574	.1544	.1508	.1470	.1426	.1378	.1324	.1264	.1196	.1120	.1034	.0934	.0816
.250	.1326	.1302	.1276	.1248	.1216	.1180	.1140	.1094	.1044	.0988	.0926	.0854	.0770
.200	.1066	.1050	.1032	.1012	.0988	.0962	.0932	.0900	.0864	.0826	.0780	.0730	.0674
.150	.0808	.0796	.0784	.0770	.0754	.0738	.0718	.0696	.0672	.0644	.0614	.0582	.0544
.100	.0540	.0534	.0526	.0518	.0508	.0498	.0486	.0472	.0458	.0442	.0424	.0404	.0382
.075	.0408	.0404	.0398	.0392	.0386	.0378	.0370	.0360	.0350	.0338	.0326	.0312	.0296
.050	.0270	.0268	.0264	.0260	.0256	.0252	.0246	.0240	.0234	.0226	.0218	.0210	.0200
.025	.0136	.0134	.0132	.0130	.0128	.0126	.0124	.0122	.0118	.0114	.0110	.0106	.0102
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0138	-.0138	-.0136	-.0134	-.0132	-.0130	-.0128	-.0126	-.0122	-.0120	-.0116	-.0112	-.0108
-.050	-.0276	-.0274	-.0270	-.0268	-.0266	-.0260	-.0256	-.0250	-.0246	-.0240	-.0232	-.0226	-.0218
-.075	-.0414	-.0410	-.0406	-.0402	-.0398	-.0392	-.0386	-.0378	-.0370	-.0362	-.0352	-.0342	-.0330
-.100	-.0550	-.0546	-.0542	-.0536	-.0530	-.0522	-.0514	-.0506	-.0496	-.0484	-.0472	-.0460	-.0444
-.150	-.0830	-.0826	-.0820	-.0812	-.0804	-.0794	-.0784	-.0772	-.0758	-.0742	-.0726	-.0708	-.0688

NATIONAL ADVISORY
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TABLE I - Concluded

POINT DRAG COEFFICIENT FOR ISOENERGIC FLOW - Concluded

$[M_o = 1.00]$

P_1 $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	0.4384	0.4398	0.4398	0.4386	0.4358	0.4318	0.4264	0.4194	0.4110	0.4008	0.3886	0.3746	0.3584	0.3396
.700	.3762	.3784	.3794	.3796	.3786	.3766	.3736	.3694	.3640	.3576	.3498	.3406	.3300	.3176
.600	.3170	.3196	.3214	.3222	.3224	.3218	.3202	.3180	.3148	.3108	.3058	.2998	.2930	.2850
.500	.2602	.2628	.2646	.2656	.2668	.2668	.2664	.2654	.2636	.2612	.2582	.2546	.2500	.2452
.400	.2052	.2076	.2094	.2108	.2118	.2124	.2126	.2122	.2134	.2102	.2084	.2064	.2038	.2006
.300	.1520	.1540	.1556	.1570	.1580	.1586	.1590	.1592	.1590	.1584	.1576	.1564	.1550	.1532
.250	.1258	.1274	.1288	.1300	.1310	.1316	.1322	.1324	.1322	.1320	.1314	.1308	.1296	.1284
.200	.1000	.1014	.1026	.1036	.1044	.1050	.1054	.1058	.1058	.1056	.1054	.1050	.1042	.1034
.150	.0742	.0754	.0762	.0770	.0778	.0782	.0786	.0790	.0790	.0790	.0788	.0786	.0782	.0776
.100	.0494	.0502	.0508	.0514	.0518	.0522	.0524	.0526	.0528	.0528	.0528	.0526	.0524	.0522
.075	.0370	.0374	.0380	.0384	.0388	.0390	.0394	.0394	.0396	.0396	.0396	.0396	.0394	.0392
.050	.0246	.0248	.0252	.0256	.0258	.0260	.0262	.0262	.0264	.0264	.0264	.0264	.0262	.0262
.025	.0122	.0124	.0124	.0126	.0128	.0128	.0130	.0130	.0130	.0130	.0130	.0130	.0130	.0130
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0120	-.0122	-.0124	-.0126	-.0128	-.0128	-.0130	-.0130	-.0130	-.0130	-.0132	-.0130	-.0130	-.0130
-.050	-.0242	-.0246	-.0250	-.0254	-.0256	-.0258	-.0260	-.0262	-.0262	-.0264	-.0264	-.0264	-.0264	-.0262
-.075	-.0364	-.0370	-.0376	-.0380	-.0384	-.0388	-.0390	-.0394	-.0396	-.0396	-.0398	-.0398	-.0396	-.0396
-.100	-.0482	-.0490	-.0498	-.0504	-.0510	-.0514	-.0518	-.0522	-.0524	-.0526	-.0528	-.0528	-.0528	-.0526
-.150	-.0714	-.0728	-.0738	-.0748	-.0756	-.0764	-.0772	-.0776	-.0780	-.0784	-.0786	-.0788	-.0788	-.0786

P_1 $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.3176	0.2922	0.2620	0.2250	0.1770	0.1048	------	------	------	------	------	------	------
.700	.3034	.2872	.2686	.2468	.2210	.1896	0.1492	0.0882	------	------	------	------	------
.600	.2756	.2652	.2530	.2392	.2234	.2052	.1836	.1574	0.1238	0.0730	------	------	------
.500	.2390	.2324	.2246	.2158	.2058	.1944	.1814	.1664	.1488	.1274	0.1002	0.0592	------
.400	.1968	.1926	.1878	.1822	.1760	.1690	.1610	.1520	.1418	.1300	.1162	.0994	0.0780
.300	.1510	.1486	.1456	.1424	.1386	.1344	.1298	.1244	.1186	.1118	.1042	.0954	.0852
.250	.1268	.1250	.1228	.1204	.1176	.1146	.1110	.1070	.1028	.0978	.0924	.0858	.0786
.200	.1022	.1010	.0994	.0978	.0958	.0934	.0910	.0882	.0850	.0814	.0776	.0730	.0680
.150	.0768	.0760	.0750	.0740	.0726	.0710	.0694	.0676	.0654	.0630	.0604	.0574	.0546
.100	.0518	.0512	.0506	.0500	.0492	.0482	.0472	.0462	.0448	.0434	.0418	.0400	.0382
.075	.0388	.0386	.0382	.0376	.0370	.0364	.0358	.0350	.0340	.0330	.0318	.0306	.0292
.050	.0260	.0258	.0254	.0252	.0248	.0244	.0240	.0234	.0228	.0222	.0216	.0208	.0198
.025	.0130	.0128	.0126	.0126	.0124	.0122	.0120	.0118	.0114	.0112	.0108	.0104	.0100
0	0	0	0	0	0	0	0	0	0	0	0	0	0
-.025	-.0130	-.0128	-.0128	-.0126	-.0126	-.0124	-.0122	-.0120	-.0116	-.0114	-.0110	-.0108	-.0104
-.050	-.0262	-.0260	-.0258	-.0256	-.0254	-.0250	-.0246	-.0242	-.0238	-.0232	-.0226	-.0220	-.0212
-.075	-.0394	-.0392	-.0390	-.0386	-.0382	-.0378	-.0372	-.0366	-.0360	-.0352	-.0344	-.0334	-.0324
-.100	-.0524	-.0522	-.0520	-.0514	-.0510	-.0504	-.0498	-.0490	-.0482	-.0472	-.0462	-.0450	-.0436
-.150	-.0784	-.0782	-.0778	-.0772	-.0766	-.0758	-.0748	-.0738	-.0728	-.0714	-.0700	-.0684	-.0666

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE II

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT FOR FLOWS WHEREIN ENERGY IS ADDED

$[M_0 = 0]$

$\frac{\Delta H}{q_0}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	0.8944	0.7746	0.6324	0.4472
.700	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	.8944	.7746
.600	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000
.500	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832
.400	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416
.300	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832
.250	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492
.200	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	2.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124
.150	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734
.100	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320
.075	2.3874	2.3452	2.3022	2.2584	2.2136	2.1680	2.1214	2.0736	2.0248	1.9748	1.9236	1.8708	1.8166	1.7606
.050	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8976	1.8440	1.7888
.025	2.4290	2.3874	2.3452	2.3022	2.2584	2.2136	2.1680	2.1214	2.0736	2.0248	1.9748	1.9236	1.8708	1.8166
0	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440
-.025	2.4698	2.4290	2.3874	2.3452	2.3022	2.2584	2.2136	2.1680	2.1214	2.0736	2.0248	1.9748	1.9236	1.8708
-.050	2.4900	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974
-.075	2.5100	2.4698	2.4290	2.3874	2.3452	2.3022	2.2584	2.2136	2.1680	2.1214	2.0736	2.0248	1.9748	1.9236
-.100	2.5298	2.4900	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494
-.150	2.5690	2.5298	2.4900	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000
-.200	2.6076	2.5690	2.5298	2.4900	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494
-.250	2.6458	2.6076	2.5690	2.5298	2.4900	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976
-.300	2.6832	2.6458	2.6076	2.5690	2.5298	2.4900	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448
-.400	2.7568	2.7202	2.6832	2.6458	2.6076	2.5690	2.5298	2.4900	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360
-.500	2.8284	2.7928	2.7568	2.7202	2.6832	2.6458	2.6076	2.5690	2.5298	2.4900	2.4494	2.4084	2.3664	2.3238
-.600	2.8982	2.8636	2.8284	2.7928	2.7568	2.7202	2.6832	2.6458	2.6076	2.5690	2.5298	2.4900	2.4494	2.4084
-.700	2.9664	2.9326	2.8982	2.8636	2.8284	2.7928	2.7568	2.7202	2.6832	2.6458	2.6076	2.5690	2.5298	2.4900
-.800	3.0332	3.0000	2.9664	2.9326	2.8982	2.8636	2.8284	2.7928	2.7568	2.7202	2.6832	2.6458	2.6076	2.5690

$\frac{\Delta H}{q_0}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0	------	------	------	------	------	------	------	------	------	------	------	------
.700	.6324	0.4472	0	------	------	------	------	------	------	------	------	------	------
.600	.8944	.7746	.6324	0.4472	0	------	------	------	------	------	------	------	------
.500	1.0954	1.0000	.8944	.7746	.6324	0.4472	0	------	------	------	------	------	------
.400	1.2650	1.1832	1.0954	1.0000	.8944	.7746	.6324	0.4472	0	------	------	------	------
.300	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	.8944	.7746	.6324	0.4472	0	------	------
.250	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	.8944	.7746	.6324	.4472	0	------
.200	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	.8944	.7746	.6324	.4472	0
.150	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	.8944	.7746	.6324	.4472
.100	1.6734	1.1624	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	.8944	.7746	.6324
.075	1.7030	1.6432	1.5812	1.5166	1.4492	1.3784	1.3038	1.2248	1.1402	1.0488	.9486	.8366	.7072
.050	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	.8944	.7746
.025	1.7606	1.7030	1.6432	1.5812	1.5166	1.4492	1.3784	1.3038	1.2248	1.1402	1.0488	.9486	.8366
0	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000	.8944
-.025	1.8166	1.7606	1.7030	1.6432	1.5812	1.5166	1.4492	1.3784	1.3038	1.2248	1.1402	1.0488	.9486
-.050	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954	1.0000
-.075	1.8708	1.8166	1.7606	1.7030	1.6432	1.5812	1.5166	1.4492	1.3784	1.3038	1.2248	1.1402	1.0488
-.100	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832	1.0954
-.150	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650	1.1832
-.200	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416	1.2650
-.250	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142	1.3416
-.300	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492	1.4832	1.4142
-.400	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734	1.6124	1.5492
-.500	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888	1.7320	1.6734
-.600	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974	1.8440	1.7888
-.700	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000	1.9494	1.8974
-.800	2.5298	2.4900	2.4494	2.4084	2.3664	2.3238	2.2804	2.2360	2.1908	2.1448	2.0976	2.0494	2.0000

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE II - Continued

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.05\right]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6730	1.6126	1.5494	1.4834	1.4148	1.3422	1.2656	1.1840	1.0966	1.0012	0.8958	0.7762	0.6344	0.4498
.700	1.7884	1.7316	1.6732	1.6126	1.5496	1.4836	1.4148	1.3422	1.2658	1.1842	1.0966	1.0012	.8958	.7762
.600	1.8968	1.8436	1.7886	1.7318	1.6732	1.6128	1.5496	1.4836	1.4150	1.3424	1.2658	1.1842	1.0966	1.0012
.500	1.9994	1.9488	1.8970	1.8438	1.7886	1.7320	1.6734	1.6128	1.5498	1.4838	1.4150	1.3424	1.2658	1.1844
.400	2.0970	2.0486	1.9996	1.9490	1.8970	1.8440	1.7888	1.7320	1.6734	1.6130	1.5498	1.4840	1.4150	1.3426
.300	2.1902	2.1440	2.0970	2.0490	1.9996	1.9490	1.8972	1.8440	1.7888	1.7322	1.6736	1.6130	1.5500	1.4842
.250	2.2352	2.1902	2.1440	2.0970	2.0486	1.9994	1.9488	1.8968	1.8436	1.7884	1.7316	1.6730	1.6124	1.5594
.200	2.2790	2.2352	2.1902	2.1442	2.0972	2.0490	1.9998	1.9492	1.8972	1.8442	1.7890	1.7322	1.6738	1.6132
.150	2.3220	2.2792	2.2352	2.1902	2.1440	2.0970	2.0486	1.9994	1.9488	1.8968	1.8436	1.7884	1.7316	1.6730
.100	2.3650	2.3226	2.2794	2.2354	2.1904	2.1442	2.0974	2.0492	1.9998	1.9494	1.8974	1.8442	1.7892	1.7324
.075	2.3860	2.3438	2.3008	2.2574	2.2128	2.1672	2.1206	2.0730	2.0242	1.9742	1.9230	1.8704	1.8162	1.7604
.050	2.4066	2.3650	2.3224	2.2792	2.2352	2.1902	2.1440	2.0970	2.0486	1.9994	1.9488	1.8970	1.8436	1.7884
.025	2.4272	2.3860	2.3438	2.3010	2.2574	2.2126	2.1672	2.1206	2.0730	2.0242	1.9742	1.9230	1.8704	1.8162
0	2.4480	2.4070	2.3652	2.3228	2.2796	2.2354	2.1906	2.1444	2.0974	2.0494	2.0000	1.9494	1.8978	1.8444
-.025	2.4682	2.4276	2.3858	2.3438	2.3010	2.2574	2.2128	2.1672	2.1204	2.0730	2.0242	1.9742	1.9230	1.8704
-.050	2.4884	2.4478	2.4066	2.3652	2.3224	2.2792	2.2352	2.1902	2.1440	2.0970	2.0486	1.9994	1.9488	1.8968
-.075	2.5082	2.4682	2.4274	2.3860	2.3438	2.3008	2.2574	2.2126	2.1672	2.1206	2.0730	2.0242	1.9742	1.9230
-.100	2.5282	2.4884	2.4482	2.4070	2.3654	2.3228	2.2798	2.2356	2.1906	2.1446	2.0976	2.0494	2.0002	1.9496
-.150	2.5674	2.5282	2.4884	2.4482	2.4070	2.3652	2.3224	2.2792	2.2352	2.1902	2.1440	2.0970	2.0486	1.9994
-.200	2.6060	2.5674	2.5284	2.4886	2.4486	2.4072	2.3656	2.3230	2.2798	2.2356	2.1906	2.1446	2.0978	2.0496
-.250	2.6440	2.6052	2.5674	2.5282	2.4884	2.4478	2.4070	2.3652	2.3224	2.2792	2.2352	2.1902	2.1440	2.0970
-.300	2.6814	2.6440	2.6062	2.5676	2.5286	2.4888	2.4486	2.4074	2.3656	2.3232	2.2800	2.2358	2.1910	2.1448
-.400	2.7548	2.7184	2.6816	2.6442	2.6064	2.5678	2.5286	2.4890	2.4488	2.4076	2.3658	2.3234	2.2802	2.2360
-.500	2.8264	2.7908	2.7548	2.7186	2.6818	2.6444	2.6064	2.5680	2.5288	2.4892	2.4488	2.4076	2.3660	2.3236
-.600	2.8960	2.8614	2.8264	2.7912	2.7552	2.7188	2.6818	2.6446	2.6066	2.5682	2.5290	2.4892	2.4492	2.4078
-.700	2.9638	2.9302	2.8960	2.8616	2.8266	2.7914	2.7552	2.7190	2.6820	2.6448	2.6068	2.5684	2.5292	2.4894
-.800	3.0300	2.9976	2.9640	2.9304	2.8962	2.8618	2.8268	2.7916	2.7554	2.7192	2.6822	2.6450	2.6070	2.5684

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0	------	------	------	------	------	------	------	------	------	------	------	------
.700	.6344	0	------	------	------	------	------	------	------	------	------	------	------
.600	.8960	.7764	0.6346	0.4498	0	------	------	------	------	------	------	------	------
.500	1.0968	1.0014	.8960	.7764	.6346	0	------	------	------	------	------	------	------
.400	1.2660	1.1844	1.0968	1.0014	.8960	.7764	0.6346	0.4500	0	0	------	------	------
.300	1.4152	1.3426	1.2660	1.1844	1.0968	1.0014	.8960	.7764	.6346	.4500	------	------	------
.250	1.4836	1.4146	1.3420	1.2654	1.1838	1.0962	1.0008	.8956	.7760	.6342	0.4500	------	------
.200	1.5500	1.4842	1.4152	1.3426	1.2662	1.1846	1.0970	1.0016	.8962	.7766	.6346	0.4500	------
.150	1.6124	1.5494	1.4826	1.4146	1.3420	1.2654	1.1838	1.0962	1.0008	.8956	.7760	.6342	0.4496
.100	1.6738	1.6132	1.5502	1.4844	1.4154	1.3428	1.2662	1.1846	1.0970	1.0016	.8962	.7766	.6348
.075	1.7026	1.6430	1.5812	1.5168	1.4492	1.3788	1.3042	1.2252	1.1414	1.0496	.9498	.8376	.7086
.050	1.7316	1.6730	1.6124	1.5494	1.4834	1.4146	1.3420	1.2654	1.1870	1.0960	1.0008	.8954	.7760
.025	1.7604	1.7026	1.6430	1.5812	1.5166	1.4494	1.3786	1.3042	1.2254	1.1406	1.0496	.9498	.8378
0	1.7892	1.7324	1.6740	1.6134	1.5502	1.4844	1.4154	1.3408	1.2662	1.1846	1.0970	1.0006	.8962
-.025	1.8162	1.7604	1.7026	1.6430	1.5812	1.5168	1.4500	1.3786	1.3042	1.2252	1.1406	1.0494	.9498
-.050	1.8436	1.7884	1.7316	1.6730	1.6124	1.5494	1.4834	1.4146	1.3420	1.2654	1.1836	1.0960	1.0008
-.075	1.8704	1.8162	1.7604	1.7026	1.6428	1.5812	1.5166	1.4494	1.3788	1.3042	1.2252	1.1408	1.0494
-.100	1.8976	1.8444	1.7894	1.7326	1.6740	1.6134	1.5502	1.4844	1.4156	1.3430	1.2664	1.1848	1.0972
-.150	1.9486	1.8968	1.8436	1.7884	1.7316	1.6728	1.6124	1.5490	1.4836	1.4146	1.3420	1.2654	1.1836
-.200	2.0002	1.9498	1.8980	1.8446	1.7894	1.7328	1.6742	1.6136	1.5504	1.4844	1.4156	1.3430	1.2664
-.250	2.0486	1.9994	1.9488	1.8968	1.8436	1.7884	1.7316	1.6730	1.6124	1.5494	1.4846	1.4146	1.3418
-.300	2.0978	2.0498	2.0004	1.9498	1.8978	1.8448	1.7896	1.7328	1.6742	1.6136	1.5504	1.4844	1.4158
-.400	2.1910	2.1450	2.0980	2.0498	2.0006	1.9500	1.8982	1.8448	1.7896	1.7330	1.6744	1.6138	1.5506
-.500	2.2802	2.2362	2.1912	2.1450	2.0982	2.0500	2.0006	1.9500	1.8982	1.8450	1.7898	1.7330	1.6744
-.600	2.3662	2.3238	2.2804	2.2362	2.1914	2.1452	2.0982	2.0500	2.0008	1.9502	1.8982	1.8450	1.7898
-.700	2.4494	2.4080	2.3662	2.3240	2.2806	2.2364	2.1916	2.1454	2.0984	2.0502	2.0010	1.9502	1.8984
-.800	2.5294	2.4896	2.4494	2.4082	2.3664	2.3240	2.2808	2.2366	2.1916	2.1454	2.0986	2.0504	2.0010

NATIONAL ADVISORY
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TABLE II - Continued

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.10]$

P_1 $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6728	1.6126	1.5498	1.4842	1.4158	1.3438	1.2676	1.1866	1.0992	1.0046	0.8998	0.7808	0.6406	0.4584
.700	1.7876	1.7314	1.6732	1.6130	1.5502	1.4846	1.4160	1.3440	1.2678	1.1868	1.0994	1.0050	.9000	.7812
.600	1.8954	1.8426	1.7880	1.7318	1.6736	1.6134	1.5506	1.4850	1.4164	1.3444	1.2682	1.1872	1.0996	1.0052
.500	1.9976	1.9474	1.8960	1.8430	1.7884	1.7324	1.6740	1.6138	1.5510	1.4854	1.4168	1.3448	1.2686	1.1874
.400	2.0946	2.0468	1.9980	1.9478	1.8964	1.8434	1.7890	1.7328	1.6744	1.6142	1.5514	1.4858	1.4172	1.3452
.300	2.1870	2.1416	2.0952	2.0474	1.9986	1.9484	1.8968	1.8438	1.7894	1.7332	1.6748	1.6146	1.5518	1.4862
.250	2.2320	2.1874	2.1418	2.0954	2.0476	1.9988	1.9486	1.8970	1.8442	1.7896	1.7334	1.6750	1.6148	1.5518
.200	2.2760	2.2322	2.1876	2.1422	2.0956	2.0480	1.9990	1.9488	1.8974	1.8444	1.7898	1.7336	1.6752	1.6150
.150	2.3188	2.2762	2.2326	2.1880	2.1424	2.0958	2.0482	1.9992	1.9492	1.8976	1.8446	1.7900	1.7338	1.6754
.100	2.3614	2.3194	2.2766	2.2328	2.1882	2.1426	2.0962	2.0484	1.9996	1.9494	1.8978	1.8448	1.7902	1.7340
.075	2.3822	2.3406	2.2980	2.2550	2.2108	2.1656	2.1198	2.0724	2.0240	1.9748	1.9240	1.8716	1.8178	1.7626
.050	2.4028	2.3618	2.3196	2.2770	2.2332	2.1884	2.1430	2.0964	2.0486	1.9998	1.9496	1.8974	1.8450	1.7906
.025	2.4234	2.3826	2.3408	2.2984	2.2554	2.2110	2.1660	2.1200	2.0726	2.0244	1.9750	1.9242	1.8718	1.8182
0	2.4438	2.4032	2.3620	2.3200	2.2770	2.2334	2.1888	2.1432	2.0966	2.0490	2.0000	1.9498	1.8982	1.8454
-.025	2.4640	2.4238	2.3828	2.3416	2.2986	2.2556	2.2112	2.1662	2.1202	2.0730	2.0246	1.9752	1.9244	1.8722
-.050	2.4838	2.4440	2.4036	2.3626	2.3202	2.2774	2.2336	2.1890	2.1434	2.0970	2.0492	2.0000	1.9500	1.8986
-.075	2.5036	2.4644	2.4242	2.3836	2.3414	2.2990	2.2560	2.2116	2.1664	2.1206	2.0732	2.0248	1.9754	1.9248
-.100	2.5236	2.4844	2.4446	2.4038	2.3626	2.3206	2.2776	2.2340	2.1892	2.1438	2.0972	2.0494	2.0006	1.9504
-.150	2.5622	2.5238	2.4848	2.4448	2.4042	2.3630	2.3208	2.2780	2.2342	2.1896	2.1440	2.0974	2.0498	2.0008
-.200	2.6008	2.5630	2.5242	2.4850	2.4452	2.4046	2.3632	2.3212	2.2782	2.2346	2.1898	2.1442	2.0978	2.0500
-.250	2.6384	2.6012	2.5632	2.5248	2.4854	2.4454	2.4048	2.3636	2.3214	2.2786	2.2348	2.1900	2.1446	2.0980
-.300	2.6758	2.6388	2.6014	2.5636	2.5250	2.4856	2.4458	2.4050	2.3638	2.3218	2.2788	2.2350	2.1904	2.1448
-.400	2.7486	2.7128	2.6766	2.6394	2.6022	2.5642	2.5256	2.4862	2.4464	2.4058	2.3646	2.3222	2.2794	2.2356
-.500	2.8194	2.7846	2.7492	2.7134	2.6772	2.6402	2.6028	2.5648	2.5262	2.4870	2.4470	2.4062	2.3650	2.3230
-.600	2.8888	2.8548	2.8202	2.7854	2.7502	2.7142	2.6778	2.6408	2.6036	2.5654	2.5268	2.4874	2.4476	2.4070
-.700	2.9564	2.9232	2.8896	2.8554	2.8208	2.7860	2.7508	2.7146	2.6786	2.6414	2.6042	2.5660	2.5274	2.4882
-.800	3.0222	2.9900	2.9570	2.9240	2.8902	2.8562	2.8216	2.7868	2.7516	2.7154	2.6792	2.6420	2.6048	2.5668

P_1 $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.1000	------	------	------	------	------	------	------	------	------	------	------	------
.700	.6408	0.4584	0.1000	------	------	------	------	------	------	------	------	------	------
.600	.9002	.7812	.6408	0.4586	0.1002	------	------	------	------	------	------	------	------
.500	1.1000	1.0054	.9004	.7816	.6410	0.4588	0.1002	------	------	------	------	------	------
.400	1.2688	1.1878	1.1002	1.0058	.9006	.7816	.6412	0.4588	0.1002	------	------	------	------
.300	1.4176	1.3454	1.2692	1.1880	1.1004	1.0060	.9010	.7818	.6414	0.4590	0.1002	------	------
.250	1.4864	1.4176	1.3456	1.2694	1.1882	1.1008	1.0060	.9010	.7820	.6414	.4590	0	------
.200	1.5522	1.4864	1.4178	1.3458	1.2694	1.1884	1.1008	1.0062	.9012	.7820	.6416	.4590	0.1002
.150	1.6152	1.5522	1.4868	1.4180	1.3460	1.2696	1.1884	1.1012	1.0064	.9012	.7822	.6416	.4592
.100	1.6756	1.6154	1.5526	1.4870	1.4182	1.3460	1.2698	1.1886	1.1010	1.0064	.9014	.7822	.6416
.075	1.7052	1.6458	1.5842	1.5202	1.4530	1.3828	1.3086	1.2302	1.1458	1.0548	.9554	.8440	.7156
.050	1.7342	1.6758	1.6156	1.5526	1.4870	1.4184	1.3462	1.2700	1.1888	1.1014	1.0066	.9016	.7824
.025	1.7626	1.7054	1.6460	1.5844	1.5204	1.4532	1.3830	1.3088	1.2302	1.1458	1.0550	.9556	.8440
0	1.7906	1.7344	1.6760	1.6158	1.5530	1.4872	1.4186	1.3464	1.2702	1.1888	1.1014	1.0068	.9016
-.025	1.8184	1.7628	1.7056	1.6462	1.5846	1.5204	1.4534	1.3832	1.3090	1.2304	1.1460	1.0552	.9558
-.050	1.8456	1.7908	1.7348	1.6764	1.6160	1.5530	1.4874	1.4188	1.3466	1.2702	1.1890	1.1016	1.0068
-.075	1.8724	1.8184	1.7632	1.7060	1.6464	1.5848	1.5206	1.4536	1.3832	1.3090	1.2306	1.1462	1.0554
-.100	1.8988	1.8458	1.7912	1.7350	1.6764	1.6162	1.5534	1.4876	1.4190	1.3468	1.2704	1.1892	1.1016
-.150	1.9506	1.8990	1.8460	1.7914	1.7352	1.6766	1.6164	1.5534	1.4878	1.4190	1.3470	1.2706	1.1894
-.200	2.0010	1.9508	1.8992	1.8462	1.7916	1.7354	1.6768	1.6166	1.5538	1.4880	1.4192	1.3472	1.2708
-.250	2.0502	2.0012	1.9510	1.8996	1.8464	1.7918	1.7356	1.6772	1.6168	1.5536	1.4882	1.4194	1.3472
-.300	2.0982	2.0504	2.0016	1.9514	1.8996	1.8466	1.7920	1.7358	1.6774	1.6170	1.5542	1.4884	1.4196
-.400	2.1908	2.1452	2.0988	2.0510	2.0020	1.9518	1.9002	1.8472	1.7924	1.7362	1.6778	1.6174	1.5546
-.500	2.2800	2.2362	2.1914	2.1460	2.0992	2.0514	2.0026	1.9524	1.9006	1.8476	1.7930	1.7366	1.6782
-.600	2.3656	2.3234	2.2806	2.2368	2.1920	2.1464	2.0998	2.0520	2.0030	1.9528	1.9012	1.8482	1.7934
-.700	2.4482	2.4074	2.3662	2.3240	2.2810	2.2372	2.1926	2.1470	2.1004	2.0524	2.0036	1.9534	1.9016
-.800	2.5280	2.4886	2.4488	2.4082	2.3668	2.3246	2.2816	2.2380	2.1930	2.1474	2.1008	2.0530	2.0040

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE II - Continued

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.15]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6720	1.6124	1.5504	1.4854	1.4178	1.3466	1.2710	1.1904	1.1042	1.0102	0.9064	0.7888	0.6504	0.4720
.700	1.7860	1.7304	1.6730	1.6132	1.5512	1.4864	1.4186	1.3474	1.2716	1.1910	1.1048	1.0110	.9070	.7894
.600	1.8930	1.8410	1.7870	1.7314	1.6738	1.6142	1.5520	1.4872	1.4194	1.3480	1.2724	1.1918	1.1054	1.0116
.500	1.9944	1.9450	1.8942	1.8420	1.7880	1.7324	1.6748	1.6152	1.5528	1.4880	1.4202	1.3488	1.2732	1.1924
.400	2.0906	2.0436	1.9956	1.9460	1.8952	1.8430	1.7890	1.7334	1.6756	1.6160	1.5538	1.4888	1.4210	1.3496
.300	2.1824	2.1376	2.0918	2.0448	1.9966	1.9470	1.8964	1.8442	1.7900	1.7342	1.6766	1.6168	1.5548	1.4898
.250	2.2270	2.1832	2.1382	2.0922	2.0454	1.9970	1.9476	1.8968	1.8444	1.7904	1.7350	1.6772	1.6176	1.5552
.200	2.2704	2.2276	2.1838	2.1388	2.0928	2.0460	1.9978	1.9482	1.8972	1.8450	1.7910	1.7354	1.6776	1.6178
.150	2.3132	2.2712	2.2282	2.1842	2.1394	2.0934	2.0466	1.9982	1.9486	1.8978	1.8456	1.7916	1.7360	1.6782
.100	2.3554	2.3140	2.2718	2.2288	2.1848	2.1400	2.0940	2.0472	1.9998	1.9492	1.8984	1.8462	1.7920	1.7364
.075	2.3760	2.3352	2.2934	2.2506	2.2072	2.1630	2.1176	2.0712	2.0232	1.9746	1.9244	1.8726	1.8196	1.7648
.050	2.3964	2.3558	2.3146	2.2722	2.2294	2.1856	2.1406	2.0948	2.0476	1.9992	1.9500	1.8990	1.8468	1.7926
.025	2.4168	2.3766	2.3358	2.2938	2.2514	2.2080	2.1636	2.1184	2.0716	2.0240	1.9752	1.9250	1.8734	1.8202
0	2.4370	2.3972	2.3568	2.3152	2.2730	2.2300	2.1862	2.1412	2.0952	2.0482	2.0000	1.9504	1.8996	1.8472
-.025	2.4570	2.4176	2.3774	2.3364	2.2944	2.2520	2.2086	2.1642	2.1186	2.0722	2.0246	1.9758	1.9256	1.8738
-.050	2.4768	2.4374	2.3980	2.3570	2.3158	2.2736	2.2308	2.1868	2.1418	2.0958	2.0488	2.0006	1.9512	1.9002
-.075	2.4964	2.4576	2.4182	2.3778	2.3370	2.2952	2.2528	2.2092	2.1648	2.1192	2.0728	2.0252	1.9764	1.9262
-.100	2.5158	2.4774	2.4384	2.3984	2.3580	2.3166	2.2742	2.2314	2.1872	2.1424	2.0964	2.0494	2.0012	1.9516
-.150	2.5546	2.5166	2.4784	2.4390	2.3992	2.3586	2.3172	2.2752	2.2318	2.1860	2.1430	2.0970	2.0500	2.0018
-.200	2.5924	2.5552	2.5172	2.4786	2.4396	2.3998	2.3594	2.3180	2.2756	2.2326	2.1886	2.1436	2.0976	2.0506
-.250	2.6296	2.5932	2.5560	2.5180	2.4794	2.4404	2.4006	2.3600	2.3184	2.2764	2.2332	2.1892	2.1442	2.0982
-.300	2.6666	2.6304	2.5938	2.5564	2.5186	2.4802	2.4412	2.4012	2.3606	2.3192	2.2768	2.2338	2.1900	2.1450
-.400	2.7388	2.7036	2.6682	2.6318	2.5952	2.5580	2.5200	2.4816	2.4424	2.4024	2.3620	2.3204	2.2782	2.2352
-.500	2.8088	2.7748	2.7404	2.7050	2.6694	2.6334	2.5968	2.5596	2.5212	2.4828	2.4438	2.4040	2.3634	2.3218
-.600	2.8772	2.8438	2.8104	2.7762	2.7418	2.7066	2.6710	2.6348	2.5980	2.5608	2.5228	2.4844	2.4452	2.4054
-.700	2.9438	2.9118	2.8788	2.8452	2.8118	2.7780	2.7434	2.7082	2.6724	2.6362	2.5996	2.5624	2.5244	2.4858
-.800	3.0088	2.9776	2.9456	2.9132	2.8802	2.8470	2.8136	2.7796	2.7448	2.7096	2.6740	2.6374	2.6012	2.5640

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.1498	------	------	------	------	------	------	------	------	------	------	------	------
.700	.6508	0.4722	0.1498	------	------	------	------	------	------	------	------	------	------
.600	.9074	.7898	.6512	0.4726	0.1500	------	------	------	------	------	------	------	------
.500	1.1060	1.0120	.9080	.7902	.6514	0.4728	0.1500	------	------	------	------	------	------
.400	1.2738	1.1930	1.1066	1.0126	.9084	.7906	.6518	0.4730	0.1502	------	------	------	------
.300	1.4218	1.3502	1.2746	1.1938	1.1074	1.0132	.9090	.7910	.6522	0.4732	0.1502	------	------
.250	1.4900	1.4222	1.3506	1.2750	1.1942	1.1076	1.0134	.9092	.7912	.6524	.4734	0.1502	------
.200	1.5556	1.4904	1.4226	1.3510	1.2754	1.1944	1.1078	1.0138	.9094	.7914	.6526	.4736	0.1502
.150	1.6182	1.5560	1.4910	1.4230	1.3516	1.2756	1.1948	1.1082	1.0140	.9096	.7916	.6528	.4738
.100	1.6784	1.6186	1.5564	1.4914	1.4234	1.3518	1.2760	1.1950	1.1086	1.0142	.9100	.7920	.6530
.075	1.7080	1.6494	1.5880	1.5246	1.4582	1.3880	1.3144	1.2364	1.1530	1.0624	.9636	.8534	.7256
.050	1.7370	1.6792	1.6194	1.5572	1.4918	1.4238	1.3522	1.2764	1.1954	1.1088	1.0146	.9102	.7922
.025	1.7652	1.7086	1.6498	1.5888	1.5250	1.4584	1.3884	1.3148	1.2368	1.1532	1.0628	.9638	.8536
0	1.7930	1.7372	1.6794	1.6196	1.5574	1.4922	1.4242	1.3526	1.2768	1.1956	1.1092	1.0148	.9104
-.025	1.8206	1.7656	1.7092	1.6502	1.5890	1.5254	1.4588	1.3888	1.3152	1.2370	1.1534	1.0630	.9642
-.050	1.8476	1.7936	1.7380	1.6800	1.6202	1.5576	1.4926	1.4246	1.3530	1.2770	1.1960	1.1094	1.0152
-.075	1.8742	1.8212	1.7662	1.7096	1.6508	1.5894	1.5258	1.4594	1.3894	1.3156	1.2374	1.1538	1.0634
-.100	1.9004	1.8482	1.7940	1.7382	1.6802	1.6204	1.5582	1.4930	1.4250	1.3532	1.2774	1.1964	1.1098
-.150	1.9522	1.9010	1.8488	1.7946	1.7390	1.6810	1.6212	1.5586	1.4934	1.4254	1.3536	1.2778	1.1968
-.200	2.0022	1.9526	1.9016	1.8492	1.7952	1.7392	1.6812	1.6214	1.5590	1.4938	1.4258	1.3540	1.2782
-.250	2.0510	2.0028	1.9534	1.9022	1.8498	1.7954	1.7398	1.6820	1.6220	1.5594	1.4942	1.4262	1.3544
-.300	2.0988	2.0516	2.0034	1.9536	1.9028	1.8502	1.7960	1.7402	1.6824	1.6222	1.5598	1.4946	1.4266
-.400	2.1910	2.1460	2.1000	2.0528	2.0046	1.9548	1.9038	1.8514	1.7970	1.7410	1.6832	1.6232	1.5608
-.500	2.2794	2.2364	2.1922	2.1472	2.1012	2.0540	2.0056	1.9558	1.9048	1.8522	1.7980	1.7420	1.6842
-.600	2.3646	2.3230	2.2806	2.2376	2.1936	2.1484	2.1022	2.0552	2.0068	1.9568	1.9058	1.8534	1.7990
-.700	2.4464	2.4066	2.3660	2.3244	2.2820	2.2388	2.1948	2.1496	2.1036	2.0562	2.0078	1.9580	1.9070
-.800	2.5256	2.4870	2.4480	2.4080	2.3674	2.3256	2.2832	2.2402	2.1960	2.1508	2.1046	2.0574	2.0090

TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_0 = 0.20]$

p_1 $\frac{\Delta H}{q_0}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6708	1.6122	1.5512	1.4874	1.4212	1.3500	1.2756	1.1960	1.1108	1.0180	0.9156	0.7998	0.6636	0.4906
.700	1.7838	1.7290	1.6724	1.6140	1.5528	1.4888	1.4226	1.3514	1.2770	1.1972	1.1120	1.0192	.9168	.8006
.600	1.8896	1.8384	1.7856	1.7310	1.6742	1.6156	1.5542	1.4904	1.4234	1.3528	1.2782	1.1984	1.1132	1.0202
.500	1.9898	1.9414	1.8916	1.8404	1.7874	1.7326	1.6758	1.6172	1.5558	1.4918	1.4248	1.3540	1.2794	1.1996
.400	2.0848	2.0390	1.9920	1.9434	1.8934	1.8422	1.7892	1.7344	1.6770	1.6188	1.5574	1.4934	1.4262	1.3554
.300	2.1758	2.1320	2.0872	2.0412	1.9940	1.9454	1.8954	1.8440	1.7910	1.7362	1.6792	1.6204	1.5590	1.4948
.250	2.2196	2.1770	2.1330	2.0882	2.0422	1.9950	1.9462	1.8964	1.8450	1.7920	1.7370	1.6800	1.6212	1.5598
.200	2.2628	2.2208	2.1780	2.1340	2.0892	2.0432	1.9960	1.9472	1.8974	1.8458	1.7928	1.7378	1.6810	1.6220
.150	2.3050	2.2640	2.2220	2.1792	2.1352	2.0904	2.0444	1.9970	1.9482	1.8982	1.8468	1.7936	1.7390	1.6820
.100	2.3464	2.3062	2.2650	2.2232	2.1802	2.1362	2.0914	2.0454	1.9980	1.9494	1.8994	1.8478	1.7946	1.7396
.075	2.3668	2.3270	2.2864	2.2448	2.2040	2.1590	2.1146	2.0690	2.0224	1.9744	1.9250	1.8742	1.8220	1.7678
.050	2.3870	2.3476	2.3074	2.2662	2.2242	2.1814	2.1374	2.0924	2.0464	1.9990	1.9504	1.9002	1.8488	1.7954
.025	2.4070	2.3680	2.3282	2.2876	2.2460	2.2050	2.1600	2.1156	2.0702	2.0234	1.9754	1.9260	1.8752	1.8230
0	2.4270	2.3884	2.3490	2.3082	2.2674	2.2254	2.1824	2.1384	2.0936	2.0474	2.0000	1.9514	1.9012	1.8496
-.025	2.4468	2.4082	2.3692	2.3294	2.2886	2.2472	2.2046	2.1612	2.1166	2.0712	2.0244	1.9764	1.9270	1.8760
-.050	2.4662	2.4284	2.3896	2.3502	2.3096	2.2686	2.2266	2.1836	2.1394	2.0949	2.0484	2.0010	1.9524	1.9022
-.075	2.4856	2.4480	2.4094	2.3704	2.3308	2.2898	2.2482	2.2056	2.1622	2.1178	2.0722	2.0252	1.9772	1.9278
-.100	2.5048	2.4674	2.4296	2.3908	2.3514	2.3108	2.2696	2.2278	2.1848	2.1408	2.0958	2.0494	2.0020	1.9534
-.150	2.5430	2.5060	2.4688	2.4308	2.3928	2.3526	2.3120	2.2708	2.2288	2.1858	2.1418	2.0968	2.0504	2.0030
-.200	2.5802	2.5440	2.5076	2.4700	2.4320	2.3932	2.3536	2.3132	2.2722	2.2300	2.1870	2.1428	2.0978	2.0514
-.250	2.6170	2.5814	2.5454	2.5088	2.4714	2.4334	2.3946	2.3550	2.3142	2.2730	2.2312	2.1880	2.1440	2.0990
-.300	2.6534	2.6184	2.5828	2.5466	2.5100	2.4726	2.4346	2.3956	2.3560	2.3156	2.2744	2.2324	2.1892	2.1450
-.400	2.7242	2.6904	2.6562	2.6210	2.5856	2.5494	2.5126	2.4750	2.4370	2.3980	2.3584	2.3180	2.2766	2.2346
-.500	2.7934	2.7604	2.7270	2.6932	2.6588	2.6238	2.5882	2.5520	2.5150	2.4776	2.4396	2.4006	2.3610	2.3202
-.600	2.8606	2.8284	2.7962	2.7632	2.7300	2.6960	2.6614	2.6264	2.5908	2.5546	2.5178	2.4802	2.4420	2.4030
-.700	2.9262	2.8950	2.8636	2.8312	2.7992	2.7662	2.7328	2.6988	2.6644	2.6290	2.5936	2.5572	2.5204	2.4828
-.800	2.9902	2.9600	2.9292	2.8982	2.8666	2.8342	2.8020	2.7690	2.7356	2.7014	2.6670	2.6318	2.5962	2.5598

p_1 $\frac{\Delta H}{q_0}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2004	------	------	------	------	------	------	------	------	------	------	------	------
.700	.6644	0.4910	0.2006	------	------	------	------	------	------	------	------	------	------
.600	.9174	.8014	.6650	0.4916	0.2008	------	------	------	------	------	------	------	------
.500	1.1142	1.0212	.9184	.8022	.6656	0.4920	0.2010	------	------	------	------	------	------
.400	1.2808	1.2008	1.1154	1.0222	.9192	.8030	.6664	0.4924	0.2012	------	------	------	------
.300	1.4276	1.3568	1.2820	1.2020	1.1164	1.0232	.9202	.8038	.6670	0.4930	0.2014	------	------
.250	1.4956	1.4284	1.3574	1.2826	1.2026	1.1170	1.0236	.9206	.8042	.6674	.4932	0.2016	------
.200	1.5606	1.4964	1.4290	1.3582	1.2834	1.2032	1.1176	1.0242	.9210	.8046	.6676	.4934	0.2016
.150	1.6228	1.5612	1.4970	1.4298	1.3590	1.2840	1.2038	1.1182	1.0246	.9216	.8050	.6680	.4936
.100	1.6828	1.6236	1.5620	1.4978	1.4304	1.3596	1.2846	1.2046	1.1186	1.0252	.9220	.8054	.6682
.075	1.7118	1.6540	1.5936	1.5308	1.4850	1.3958	1.3230	1.2456	1.1624	1.0732	.9754	.8660	.7404
.050	1.7406	1.6836	1.6244	1.5628	1.4986	1.4312	1.3604	1.2852	1.2052	1.1192	1.0256	.9224	.8058
.025	1.7688	1.7128	1.6548	1.5944	1.5314	1.4856	1.3966	1.3236	1.2462	1.1632	1.0736	.9758	.8664
0	1.7964	1.7414	1.6844	1.6252	1.5636	1.4794	1.4318	1.3610	1.2858	1.2058	1.1198	1.0262	.9228
-.025	1.8238	1.7696	1.7138	1.6556	1.5952	1.5322	1.4864	1.3972	1.3242	1.2468	1.1636	1.0742	.9762
-.050	1.8506	1.7972	1.7424	1.6852	1.6260	1.5644	1.5000	1.4326	1.3616	1.2866	1.2064	1.1204	1.0266
-.075	1.8770	1.8248	1.7704	1.7146	1.6564	1.5960	1.5330	1.4672	1.3978	1.3250	1.2474	1.1642	1.0746
-.100	1.9032	1.8514	1.7982	1.7432	1.6862	1.6268	1.5652	1.5008	1.4334	1.3624	1.2870	1.2070	1.1208
-.150	1.9544	1.9042	1.8526	1.7990	1.7442	1.6870	1.6276	1.5660	1.5016	1.4340	1.3630	1.2878	1.2074
-.200	2.0040	1.9552	1.9050	1.8534	1.8000	1.7450	1.6878	1.6286	1.5666	1.5024	1.4348	1.3638	1.2884
-.250	2.0524	2.0050	1.9562	1.9060	1.8544	1.8008	1.7458	1.6886	1.6296	1.5676	1.5032	1.4354	1.3642
-.300	2.1000	2.0536	2.0062	1.9572	1.9070	1.8554	1.8018	1.7468	1.6894	1.6302	1.5682	1.5038	1.4362
-.400	2.1914	2.1472	2.1020	2.0558	2.0082	1.9592	1.9088	1.8572	1.8038	1.7484	1.6912	1.6318	1.5700
-.500	2.2792	2.2368	2.1936	2.1494	2.1042	2.0578	2.0102	1.9612	1.9108	1.8590	1.8052	1.7502	1.6930
-.600	2.3634	2.3226	2.2814	2.2390	2.1958	2.1516	2.1062	2.0598	2.0122	1.9630	1.9126	1.8608	1.8070
-.700	2.4444	2.4054	2.3656	2.3252	2.2836	2.2412	2.1980	2.1538	2.1086	2.0620	2.0142	1.9652	1.9146
-.800	2.5232	2.4852	2.4468	2.4080	2.3684	2.3274	2.2860	2.2436	2.2002	2.1560	2.1106	2.0640	2.0160

TABLE II - Continued

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.25]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6692	1.6118	1.5520	1.4894	1.4238	1.3544	1.2814	1.2032	1.1194	1.0280	0.9274	0.8138	0.6808	0.5138
.700	1.7806	1.7272	1.6718	1.6144	1.5544	1.4918	1.4262	1.3566	1.2834	1.2052	1.1210	1.0296	.9288	.8152
.600	1.8852	1.8350	1.7834	1.7300	1.6744	1.6170	1.5570	1.4944	1.4284	1.3590	1.2854	1.2070	1.1228	1.0312
.500	1.9838	1.9368	1.8882	1.8382	1.7864	1.7328	1.6774	1.6196	1.5596	1.4966	1.4306	1.3610	1.2874	1.2088
.400	2.0776	2.0330	1.9870	1.9398	1.8912	1.8412	1.7892	1.7358	1.6800	1.6222	1.5620	1.4990	1.4328	1.3632
.300	2.1672	2.1246	2.0810	2.0364	1.9904	1.9432	1.8946	1.8442	1.7924	1.7386	1.6828	1.6246	1.5644	1.5014
.250	2.2104	2.1688	2.1266	2.0826	2.0380	1.9920	1.9448	1.8960	1.8456	1.7936	1.7398	1.6842	1.6260	1.5658
.200	2.2526	2.2122	2.1708	2.1282	2.0844	2.0396	1.9938	1.9464	1.8976	1.8472	1.7952	1.7412	1.6854	1.6272
.150	2.2944	2.2544	2.2140	2.1724	2.1300	2.0860	2.0414	1.9954	1.9478	1.8990	1.8486	1.7966	1.7426	1.6868
.100	2.3348	2.2962	2.2562	2.2158	2.1744	2.1316	2.0880	2.0428	1.9970	1.9494	1.9004	1.8500	1.7980	1.7440
.075	2.3548	2.3166	2.2774	2.2372	2.1960	2.1540	2.1108	2.0664	2.0210	1.9740	1.9258	1.8760	1.8250	1.7720
.050	2.3748	2.3368	2.2980	2.2584	2.2176	2.1760	2.1334	2.0896	2.0448	1.9984	1.9508	1.9020	1.8516	1.7996
.025	2.3948	2.3572	2.3186	2.2792	2.2390	2.1978	2.1556	2.1126	2.0680	2.0224	1.9756	1.9276	1.8778	1.8264
0	2.4142	2.3770	2.3390	2.2998	2.2604	2.2194	2.1778	2.1350	2.0912	2.0464	2.0000	1.9524	1.9036	1.8530
-.025	2.4334	2.3966	2.3590	2.3204	2.2810	2.2408	2.1998	2.1574	2.1142	2.0698	2.0240	1.9772	1.9290	1.8792
-.050	2.4526	2.4164	2.3790	2.3408	2.3018	2.2620	2.2212	2.1796	2.1368	2.0928	2.0478	2.0016	1.9540	1.9052
-.075	2.4718	2.4354	2.3986	2.3610	2.3224	2.2830	2.2426	2.2016	2.1592	2.1160	2.0714	2.0256	1.9788	1.9306
-.100	2.4906	2.4546	2.4182	2.3806	2.3428	2.3038	2.2640	2.2230	2.1814	2.1386	2.0944	2.0496	2.0032	1.9554
-.150	2.5280	2.4926	2.4568	2.4202	2.3828	2.3446	2.3054	2.2658	2.2250	2.1830	2.1402	2.0962	2.0512	2.0050
-.200	2.5646	2.5302	2.4950	2.4588	2.4222	2.3848	2.3466	2.3074	2.2676	2.2268	2.1848	2.1420	2.0982	2.0530
-.250	2.6006	2.5668	2.5322	2.4968	2.4608	2.4244	2.3868	2.3484	2.3094	2.2692	2.2284	2.1866	2.1436	2.0998
-.300	2.6362	2.6028	2.5690	2.5344	2.4990	2.4630	2.4262	2.3886	2.3504	2.3114	2.2710	2.2302	2.1882	2.1454
-.400	2.7058	2.6736	2.6406	2.6074	2.5732	2.5386	2.5032	2.4670	2.4304	2.3928	2.3542	2.3148	2.2748	2.2340
-.500	2.7738	2.7422	2.7104	2.6782	2.6452	2.6116	2.5778	2.5428	2.5072	2.4710	2.4340	2.3966	2.3584	2.3188
-.600	2.8392	2.8092	2.7784	2.7470	2.7150	2.6824	2.6496	2.6160	2.5822	2.5470	2.5112	2.4750	2.4382	2.4004
-.700	2.9034	2.8744	2.8442	2.8138	2.7830	2.7514	2.7196	2.6870	2.6540	2.6204	2.5860	2.5508	2.5152	2.4790
-.800	2.9662	2.9376	2.9086	2.8788	2.8492	2.8186	2.7878	2.7560	2.7242	2.6918	2.6582	2.6242	2.5902	2.5552

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.2514	------	------	------	------	------	------	------	------	------	------	------	------
.700	.6818	0.5146	0.2518	------	------	------	------	------	------	------	------	------	------
.600	.9302	.8162	.6830	0.5154	0.2522	------	------	------	------	------	------	------	------
.500	1.1242	1.0328	.9316	.8176	.6840	0.5162	0.2526	------	------	------	------	------	------
.400	1.2892	1.2108	1.1262	1.0344	.9332	.8188	.6852	0.5170	0.2530	------	------	------	------
.300	1.4348	1.3652	1.2914	1.2128	1.1280	1.0360	.9346	.8202	.6862	0.5178	0.2534	------	------
.250	1.5022	1.4360	1.3662	1.2924	1.2136	1.1288	1.0368	.9354	.8208	.6868	.5182	0.2536	------
.200	1.5666	1.5034	1.4372	1.3674	1.2934	1.2146	1.1298	1.0378	.9362	.8214	.6872	.5186	0.2538
.150	1.6282	1.5680	1.5046	1.4384	1.3684	1.2944	1.2156	1.1306	1.0384	.9368	.8220	.6878	.5190
.100	1.6878	1.6298	1.5692	1.5058	1.4394	1.3696	1.2954	1.2166	1.1316	1.0394	.9376	.8228	.6882
.075	1.7168	1.6596	1.6006	1.5384	1.4736	1.4056	1.3338	1.2572	1.1754	1.0870	.9902	.8824	.7586
.050	1.7450	1.6892	1.6310	1.5704	1.5070	1.4406	1.3706	1.2964	1.2176	1.1324	1.0402	.9382	.8232
.025	1.7732	1.7182	1.6610	1.6018	1.5398	1.4748	1.4066	1.3348	1.2582	1.1762	1.0878	.9910	.8830
0	1.8006	1.7466	1.6906	1.6324	1.5716	1.5082	1.4418	1.3718	1.2974	1.2186	1.1332	1.0410	.9392
-.025	1.8274	1.7746	1.7194	1.6624	1.6030	1.5412	1.4760	1.4078	1.3358	1.2592	1.1770	1.0886	.9918
-.050	1.8542	1.8020	1.7480	1.6918	1.6336	1.5730	1.5094	1.4430	1.3728	1.2986	1.2194	1.1342	1.0418
-.075	1.8804	1.8290	1.7760	1.7208	1.6636	1.6044	1.5424	1.4772	1.4090	1.3368	1.2600	1.1780	1.0894
-.100	1.9064	1.8556	1.8034	1.7494	1.6932	1.6350	1.5742	1.5108	1.4440	1.3740	1.2994	1.2204	1.1350
-.150	1.9568	1.9078	1.8572	1.8048	1.7508	1.6946	1.6362	1.5754	1.5118	1.4452	1.3750	1.3004	1.2212
-.200	2.0062	1.9584	1.9094	1.8586	1.8064	1.7522	1.6960	1.6376	1.5766	1.5130	1.4462	1.3762	1.3014
-.250	2.0542	2.0078	1.9600	1.9108	1.8600	1.8078	1.7536	1.6972	1.6388	1.5780	1.5144	1.4474	1.3770
-.300	2.1010	2.0558	2.0094	1.9616	1.9126	1.8616	1.8092	1.7552	1.6988	1.6402	1.5790	1.5156	1.4486
-.400	2.1914	2.1486	2.1044	2.0592	2.0126	1.9648	1.9156	1.8646	1.8122	1.7578	1.7014	1.6426	1.5816
-.500	2.2780	2.2372	2.1950	2.1520	2.1078	2.0626	2.0158	1.9680	1.9188	1.8676	1.8150	1.7606	1.7038
-.600	2.3614	2.3222	2.2818	2.2408	2.1984	2.1554	2.1114	2.0660	2.0192	1.9714	1.9216	1.8704	1.8176
-.700	2.4418	2.4040	2.3654	2.3258	2.2854	2.2444	2.2022	2.1592	2.1148	2.0690	2.0222	1.9742	1.9244
-.800	2.5188	2.4826	2.4456	2.4080	2.3692	2.3296	2.2894	2.2482	2.2060	2.1626	2.1180	2.0724	2.0252

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TABLE II - Continued

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_0 = 0.30]$

$\frac{\Delta H}{q_0}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6670	1.6112	1.5528	1.4920	1.4276	1.3602	1.2882	1.2116	1.1294	1.0402	0.9414	0.8304	0.7014	0.5406
.700	1.7768	1.7250	1.6708	1.6150	1.5566	1.4954	1.4308	1.3632	1.2912	1.2144	1.1320	1.0426	.9436	.8322
.600	1.8794	1.8312	1.7806	1.7290	1.6750	1.6188	1.5600	1.4988	1.4344	1.3662	1.2942	1.2172	1.1346	1.0450
.500	1.9764	1.9310	1.8838	1.8356	1.7852	1.7330	1.6788	1.6226	1.5636	1.5024	1.4376	1.3696	1.2972	1.2200
.400	2.0686	2.0256	1.9810	1.9358	1.8884	1.8398	1.7894	1.7372	1.6830	1.6264	1.5672	1.5056	1.4410	1.3726
.300	2.1564	2.1156	2.0734	2.0306	1.9860	1.9402	1.8926	1.8440	1.7936	1.7412	1.6868	1.6300	1.5710	1.5092
.250	2.1988	2.1589	2.1180	2.0762	2.0329	2.0082	1.9424	1.8952	1.8462	1.7956	1.7432	1.6887	1.6319	1.5727
.200	2.2404	2.2014	2.1614	2.1206	2.0786	2.0352	1.9904	1.9448	1.8974	1.8484	1.7976	1.7452	1.6906	1.6338
.150	2.2811	2.2433	2.2040	2.1641	2.1231	2.0810	2.0376	1.9930	1.9470	1.8997	1.8506	1.7996	1.7472	1.6926
.100	2.3210	2.2840	2.2456	2.2066	2.1668	2.1254	2.0834	2.0400	1.9956	1.9492	1.9018	1.8526	1.8020	1.7494
.075	2.3406	2.3040	2.2662	2.2280	2.1882	2.1476	2.1059	2.0630	2.0190	1.9736	1.9268	1.8785	1.8286	1.7768
.050	2.3602	2.3238	2.2863	2.2486	2.2095	2.1695	2.1282	2.0859	2.0426	1.9977	1.9516	1.9039	1.8549	1.8039
.025	2.3796	2.3436	2.3067	2.2691	2.2305	2.1908	2.1501	2.1086	2.0656	2.0213	1.9758	1.9289	1.8807	1.8306
0	2.3988	2.3632	2.3264	2.2894	2.2512	2.2120	2.1718	2.1308	2.0884	2.0448	2.0000	1.9538	1.9062	1.8570
-.025	2.4177	2.3824	2.3460	2.3095	2.2718	2.2331	2.1933	2.1527	2.1110	2.0681	2.0238	1.9782	1.9314	1.8828
-.050	2.4363	2.4016	2.3657	2.3296	2.2921	2.2540	2.2146	2.1746	2.1334	2.0908	2.0472	2.0024	1.9560	1.9083
-.075	2.4551	2.4206	2.3848	2.3492	2.3122	2.2746	2.2357	2.1960	2.1553	2.1134	2.0704	2.0260	1.9805	1.9336
-.100	2.4734	2.4394	2.4042	2.3690	2.3322	2.2950	2.2566	2.2174	2.1770	2.1358	2.0932	2.0494	2.0048	1.9584
-.150	2.5098	2.4763	2.4422	2.4074	2.3716	2.3351	2.2974	2.2594	2.2200	2.1795	2.1382	2.0957	2.0521	2.0070
-.200	2.5458	2.5128	2.4792	2.4454	2.4102	2.3746	2.3378	2.3004	2.2618	2.2224	2.1822	2.1408	2.0982	2.0544
-.250	2.5826	2.5485	2.5158	2.4814	2.4482	2.4127	2.3772	2.3407	2.3032	2.2646	2.2252	2.1846	2.1433	2.1005
-.300	2.6158	2.5844	2.5520	2.5192	2.4856	2.4510	2.4158	2.3802	2.3434	2.3058	2.2674	2.2276	2.1874	2.1458
-.400	2.6838	2.6534	2.6218	2.5908	2.5582	2.5252	2.4912	2.4568	2.4218	2.3860	2.3490	2.3112	2.2726	2.2330
-.500	2.7496	2.7206	2.6900	2.6598	2.6282	2.5968	2.5642	2.5312	2.4974	2.4628	2.4274	2.3914	2.3546	2.3164
-.600	2.8140	2.7856	2.7564	2.7272	2.6970	2.6662	2.6350	2.6030	2.5706	2.5374	2.5034	2.4686	2.4334	2.3972
-.700	2.8764	2.8490	2.8208	2.7926	2.7632	2.7336	2.7034	2.6728	2.6414	2.6092	2.5766	2.5432	2.5094	2.4744
-.800	2.9376	2.9110	2.8834	2.8560	2.8278	2.7992	2.7698	2.7404	2.7100	2.6790	2.6474	2.6154	2.5828	2.5492

$\frac{\Delta H}{q_0}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.3028	------	------	------	------	------	------	------	------	------	------	------	------
.700	.7030	0.5418	0.3034	------	------	------	------	------	------	------	------	------	------
.600	.9456	.8340	.7044	0.5430	0.3040	------	------	------	------	------	------	------	------
.500	1.1370	1.0472	.9478	.8358	.7060	0.5442	0.3048	------	------	------	------	------	------
.400	1.3000	1.2228	1.1396	1.0496	.9498	.8376	.7076	0.5454	0.3054	------	------	------	------
.300	1.4442	1.3756	1.3028	1.2254	1.1422	1.0518	.9518	.8396	.7092	0.5466	0.3060	------	------
.250	1.5110	1.4459	1.3772	1.3043	1.2268	1.1435	1.0530	.9529	.8406	.7099	.5472	0.3064	------
.200	1.5746	1.5126	1.4474	1.3786	1.3158	1.2282	1.1448	1.0542	.9540	.8414	.7106	.5478	0.3068
.150	1.6357	1.5764	1.5143	1.4490	1.3802	1.3071	1.2295	1.1460	1.0553	.9550	.8425	.7114	.5483
.100	1.6944	1.6376	1.5782	1.5160	1.4506	1.3816	1.3086	1.2308	1.1472	1.0564	.9560	.8432	.7122
.075	1.7231	1.6673	1.6089	1.5351	1.4845	1.4174	1.3466	1.2711	1.1906	1.1035	1.0082	.9021	.7810
.050	1.7512	1.6964	1.6393	1.5798	1.5176	1.4524	1.3832	1.3102	1.2322	1.1485	1.0575	.9570	.8443
.025	1.7788	1.7250	1.6691	1.6109	1.5499	1.4861	1.4190	1.3480	1.2725	1.1919	1.1047	1.0093	.9031
0	1.8058	1.7532	1.6984	1.6412	1.5816	1.5192	1.4540	1.3846	1.3116	1.2336	1.1498	1.0586	.9580
-.025	1.8326	1.7807	1.7269	1.6709	1.6126	1.5516	1.4877	1.4205	1.3495	1.2739	1.1932	1.1059	1.0104
-.050	1.8593	1.8081	1.7551	1.7002	1.6428	1.5833	1.5209	1.4555	1.3862	1.3130	1.2348	1.1510	1.0598
-.075	1.8850	1.8346	1.7829	1.7288	1.6728	1.6144	1.5535	1.4894	1.4221	1.3510	1.2755	1.1945	1.1071
-.100	1.9106	1.8612	1.8100	1.7570	1.7020	1.6446	1.5850	1.5226	1.4572	1.3880	1.3144	1.2362	1.1522
-.150	1.9606	1.8925	1.8632	1.8120	1.7589	1.7038	1.6467	1.5867	1.5242	1.4587	1.3894	1.3158	1.2377
-.200	2.0092	1.9630	1.9150	1.8652	1.8140	1.7608	1.7060	1.6484	1.5886	1.5260	1.4602	1.3910	1.3174
-.250	2.0568	2.0116	1.9651	1.9170	1.8675	1.8162	1.7630	1.7078	1.6505	1.5904	1.5275	1.4618	1.3924
-.300	2.1030	2.0590	2.0138	1.9672	1.9192	1.8696	1.8182	1.7650	1.7096	1.6522	1.5922	1.5294	1.4634
-.400	2.1922	2.1506	2.1078	2.0638	2.0184	1.9718	1.9236	1.8736	1.8224	1.7690	1.7134	1.6558	1.5958
-.500	2.2778	2.2380	2.1972	2.1554	2.1124	2.0684	2.0228	1.9760	1.9278	1.8778	1.8262	1.7728	1.7172
-.600	2.3600	2.3220	2.2830	2.2432	2.2024	2.1604	2.1172	2.0730	2.0274	1.9806	1.9320	1.8822	1.8302
-.700	2.4390	2.4026	2.3654	2.3272	2.2884	2.2482	2.2072	2.1652	2.1220	2.0776	2.0320	1.9850	1.9364
-.800	2.5150	2.4800	2.4444	2.4080	2.3708	2.3320	2.2934	2.2534	2.2122	2.1700	2.1268	2.0824	2.0364

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.35]$

P_1 / $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6644	1.6104	1.5536	1.4944	1.4324	1.3662	1.2964	1.2218	1.1414	1.0540	0.9580	0.8500	0.7246	0.5712
.700	1.7720	1.7220	1.6696	1.6156	1.5590	1.4992	1.4366	1.3706	1.3004	1.2256	1.1450	1.0572	.9610	.8526
.600	1.8728	1.8260	1.7776	1.7276	1.6754	1.6206	1.5638	1.5040	1.4412	1.3750	1.3044	1.2294	1.1486	1.0604
.500	1.9676	1.9240	1.8788	1.8322	1.7836	1.7332	1.6808	1.6260	1.5688	1.5090	1.4458	1.3792	1.3086	1.2332
.400	2.0578	2.0168	1.9740	1.9306	1.8850	1.8382	1.7892	1.7388	1.6860	1.6312	1.5738	1.5136	1.4504	1.3836
.300	2.1438	2.1050	2.0646	2.0236	1.9808	1.9368	1.8910	1.8438	1.7950	1.7442	1.6914	1.6364	1.5788	1.5184
.250	2.1852	2.1474	2.1082	2.0682	2.0268	1.9838	1.9396	1.8942	1.8468	1.7978	1.7470	1.6944	1.6388	1.5812
.200	2.2256	2.1890	2.1508	2.1118	2.0718	2.0300	1.9870	1.9430	1.8972	1.8498	1.8008	1.7500	1.6968	1.6414
.150	2.2656	2.2296	2.1924	2.1544	2.1154	2.0748	2.0334	1.9904	1.9460	1.9004	1.8528	1.8036	1.7526	1.6994
.100	2.3044	2.2696	2.2332	2.1962	2.1582	2.1188	2.0782	2.0368	1.9934	1.9492	1.9032	1.8558	1.8066	1.7552
.075	2.3238	2.2892	2.2534	2.2166	2.1792	2.1404	2.1002	2.0592	2.0170	1.9732	1.9280	1.8812	1.8328	1.7826
.050	2.3428	2.3086	2.2730	2.2370	2.1998	2.1616	2.1222	2.0818	2.0398	1.9968	1.9524	1.9064	1.8588	1.8092
.025	2.3614	2.3278	2.2928	2.2572	2.2204	2.1826	2.1436	2.1038	2.0626	2.0202	1.9762	1.9312	1.8842	1.8356
0	2.3804	2.3470	2.3124	2.2772	2.2408	2.2036	2.1650	2.1258	2.0852	2.0434	2.0000	1.9556	1.9094	1.8618
-.025	2.3988	2.3656	2.3316	2.2968	2.2610	2.2242	2.1862	2.1472	2.1070	2.0660	2.0234	1.9796	1.9340	1.8872
-.050	2.4172	2.3844	2.3506	2.3162	2.2808	2.2450	2.2070	2.1688	2.1290	2.0886	2.0464	2.0034	1.9586	1.9124
-.075	2.4344	2.4028	2.3694	2.3356	2.3006	2.2646	2.2276	2.1898	2.1508	2.1106	2.0692	2.0268	1.9828	1.9372
-.100	2.4532	2.4212	2.3882	2.3546	2.3202	2.2844	2.2480	2.2106	2.1720	2.1326	2.0916	2.0498	2.0064	1.9618
-.150	2.4888	2.4576	2.4252	2.3924	2.3586	2.3238	2.2882	2.2518	2.2142	2.1754	2.1360	2.0952	2.0532	2.0096
-.200	2.5238	2.4930	2.4614	2.4294	2.3964	2.3624	2.3276	2.2922	2.2554	2.2178	2.1792	2.1394	2.0984	2.0562
-.250	2.5580	2.5282	2.4972	2.4656	2.4336	2.4004	2.3662	2.3314	2.2956	2.2592	2.2214	2.1828	2.1430	2.1018
-.300	2.5920	2.5624	2.5322	2.5014	2.4698	2.4374	2.4040	2.3702	2.3354	2.2996	2.2628	2.2252	2.1862	2.1462
-.400	2.6580	2.6298	2.6006	2.5712	2.5410	2.5098	2.4780	2.4454	2.4120	2.3780	2.3430	2.3070	2.2702	2.2320
-.500	2.7222	2.6952	2.6672	2.6388	2.6098	2.5800	2.5492	2.5184	2.4862	2.4538	2.4200	2.3860	2.3506	2.3146
-.600	2.7846	2.7586	2.7318	2.7040	2.6762	2.6476	2.6182	2.5880	2.5576	2.5264	2.4944	2.4618	2.4282	2.3934
-.700	2.8448	2.8204	2.7942	2.7676	2.7410	2.7132	2.6850	2.6566	2.6270	2.5968	2.5662	2.5348	2.5026	2.4694
-.800	2.9044	2.8798	2.8542	2.8296	2.8040	2.7770	2.7500	2.7224	2.6940	2.6652	2.6358	2.6058	2.5748	2.5430

P_1 / $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.3544	------	------	------	------	------	------	------	------	------	------	------	------
.700	.7268	0.5730	0.3554	------	------	------	------	------	------	------	------	------	------
.600	.9638	.8550	.7290	0.5746	0.3564	------	------	------	------	------	------	------	------
.500	1.1520	1.0638	.9668	.8576	.7312	0.5764	0.3576	------	------	------	------	------	------
.400	1.3124	1.2370	1.1554	1.0670	.9696	.8602	.7334	0.5780	0.3586	------	------	------	------
.300	1.4548	1.3876	1.3166	1.2406	1.1588	1.0702	.9726	.8626	.7354	0.5796	0.3596	------	------
.250	1.5206	1.4570	1.3898	1.3186	1.2424	1.1606	1.0718	.9742	.8640	.7364	.5808	0.3602	------
.200	1.5836	1.5230	1.4592	1.3920	1.3206	1.2442	1.1622	1.0734	.9752	.8654	.7376	.5814	0.3606
.150	1.6440	1.5860	1.5254	1.4614	1.3940	1.3226	1.2462	1.1642	1.0750	.9768	.8668	.7386	.5824
.100	1.7022	1.6464	1.5886	1.5276	1.4634	1.3962	1.3248	1.2480	1.1660	1.0764	.9784	.8678	.7398
.075	1.7302	1.6758	1.6190	1.5596	1.4974	1.4314	1.3618	1.2880	1.2086	1.1228	1.0294	.9254	.8072
.050	1.7580	1.7046	1.6490	1.5908	1.5298	1.4658	1.3984	1.3266	1.2500	1.1676	1.0780	.9798	.8692
.025	1.7852	1.7328	1.6784	1.6214	1.5620	1.4996	1.4338	1.3640	1.2900	1.2104	1.1246	1.0308	.9268
0	1.8122	1.7606	1.7074	1.6516	1.5932	1.5322	1.4680	1.4004	1.3286	1.2518	1.1694	1.0798	.9812
-.025	1.8386	1.7880	1.7354	1.6810	1.6238	1.5644	1.5018	1.4368	1.3660	1.2918	1.2122	1.1262	1.0324
-.050	1.8646	1.8154	1.7634	1.7098	1.6546	1.5958	1.5344	1.4702	1.4026	1.3304	1.2538	1.1710	1.0812
-.075	1.8902	1.8412	1.7908	1.7382	1.6836	1.6264	1.5668	1.5040	1.4380	1.3680	1.2938	1.2140	1.1280
-.100	1.9152	1.8674	1.8178	1.7662	1.7124	1.6566	1.5982	1.5366	1.4726	1.4044	1.3326	1.2554	1.1726
-.150	1.9648	1.9182	1.8702	1.8204	1.7688	1.7150	1.6590	1.6006	1.5392	1.4748	1.4066	1.3344	1.2572
-.200	2.0126	1.9676	1.9214	1.8730	1.8232	1.7716	1.7176	1.6616	1.6028	1.5414	1.4772	1.4086	1.3364
-.250	2.0594	2.0158	1.9708	1.9242	1.8760	1.8262	1.7742	1.7202	1.6642	1.6054	1.5440	1.4792	1.4106
-.300	2.1050	2.0628	2.0190	1.9738	1.9272	1.8788	1.8288	1.7770	1.7230	1.6664	1.6078	1.5460	1.4812
-.400	2.1930	2.1530	2.1116	2.0692	2.0252	1.9800	1.9332	1.8846	1.8344	1.7822	1.7282	1.6714	1.6126
-.500	2.2774	2.2392	2.2000	2.1598	2.1182	2.0756	2.0314	1.9860	1.9390	1.8902	1.8398	1.7876	1.7332
-.600	2.3580	2.3220	2.2844	2.2462	2.2070	2.1664	2.1248	2.0820	2.0376	1.9918	1.9448	1.8960	1.8454
-.700	2.4356	2.4010	2.3656	2.3292	2.2916	2.2530	2.2138	2.1730	2.1312	2.0882	2.0438	1.9980	1.9506
-.800	2.5106	2.4772	2.4428	2.4084	2.3730	2.3372	2.2988	2.2602	2.2202	2.1794	2.1378	2.0944	2.0498

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.40]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6606	1.6088	1.5542	1.4972	1.4370	1.3732	1.3054	1.2330	1.1548	1.0698	0.9766	0.8716	0.7510	0.6046
.700	1.7658	1.7180	1.6678	1.6158	1.5610	1.5036	1.4430	1.3790	1.3108	1.2380	1.1594	1.0740	.9804	.8752
.600	1.8642	1.8198	1.7732	1.7256	1.6752	1.6226	1.5678	1.5100	1.4492	1.3848	1.3162	1.2428	1.1642	1.0786
.500	1.9568	1.9158	1.8722	1.8278	1.7814	1.7330	1.6824	1.6298	1.5744	1.5164	1.4550	1.3902	1.3216	1.2480
.400	2.0448	2.0062	1.9654	1.9242	1.8806	1.8360	1.7890	1.7402	1.6896	1.6366	1.5808	1.5222	1.4610	1.3960
.300	2.1286	2.0920	2.0538	2.0150	1.9744	1.9326	1.8888	1.8436	1.7966	1.7476	1.6968	1.6434	1.5874	1.5290
.250	2.1690	2.1334	2.0962	2.0588	2.0194	1.9786	1.9366	1.8930	1.8476	1.8004	1.7514	1.7000	1.6466	1.5906
.200	2.2086	2.1738	2.1380	2.1014	2.0634	2.0240	1.9830	1.9408	1.8970	1.8514	1.8042	1.7548	1.7036	1.6502
.150	2.2472	2.2136	2.1784	2.1430	2.1060	2.0678	2.0282	1.9874	1.9450	1.9010	1.8554	1.8078	1.7584	1.7072
.100	2.2850	2.2524	2.2182	2.1838	2.1478	2.1108	2.0722	2.0326	1.9916	1.9490	1.9050	1.8592	1.8116	1.7624
.075	2.3038	2.2714	2.2378	2.2038	2.1684	2.1316	2.0940	2.0548	2.0142	1.9726	1.9292	1.8842	1.8376	1.7890
.050	2.3222	2.2906	2.2570	2.2234	2.1886	2.1524	2.1152	2.0768	2.0370	1.9958	1.9530	1.9088	1.8628	1.8156
.025	2.3406	2.3092	2.2762	2.2432	2.2088	2.1730	2.1362	2.0984	2.0592	2.0188	1.9768	1.9330	1.8880	1.8416
0	2.3588	2.3276	2.2952	2.2624	2.2286	2.1934	2.1572	2.1198	2.0812	2.0414	2.0000	1.9572	1.9128	1.8672
-.025	2.3770	2.3460	2.3140	2.2818	2.2482	2.2134	2.1776	2.1410	2.1030	2.0636	2.0230	1.9806	1.9372	1.8920
-.050	2.3946	2.3642	2.3326	2.3008	2.2676	2.2334	2.1982	2.1618	2.1242	2.0856	2.0456	2.0040	1.9612	1.9170
-.075	2.4122	2.3822	2.3510	2.3196	2.2868	2.2532	2.2182	2.1826	2.1456	2.1074	2.0680	2.0270	1.9848	1.9414
-.100	2.4296	2.4000	2.3692	2.3382	2.3058	2.2724	2.2382	2.2030	2.1664	2.1290	2.0900	2.0496	2.0082	1.9652
-.150	2.4640	2.4352	2.4050	2.3748	2.3434	2.3110	2.2774	2.2432	2.2078	2.1712	2.1334	2.0944	2.0540	2.0126
-.200	2.4980	2.4698	2.4404	2.4118	2.3802	2.3484	2.3160	2.2826	2.2480	2.2126	2.1758	2.1378	2.0988	2.0584
-.250	2.5312	2.5038	2.4752	2.4464	2.4164	2.3856	2.3536	2.3212	2.2876	2.2528	2.2172	2.1802	2.1424	2.1034
-.300	2.5644	2.5372	2.5092	2.4812	2.4520	2.4218	2.3906	2.3588	2.3262	2.2924	2.2578	2.2218	2.1848	2.1470
-.400	2.6280	2.6024	2.5754	2.5488	2.5210	2.4922	2.4624	2.4324	2.4014	2.3692	2.3362	2.3020	2.2672	2.2316
-.500	2.6902	2.6658	2.6400	2.6144	2.5878	2.5604	2.5322	2.5032	2.4736	2.4432	2.4118	2.3794	2.3462	2.3120
-.600	2.7504	2.7268	2.7024	2.6778	2.6526	2.6260	2.5992	2.5718	2.5434	2.5144	2.4844	2.4532	2.4220	2.3896
-.700	2.8090	2.7864	2.7628	2.7394	2.7152	2.6902	2.6642	2.6380	2.6108	2.5830	2.5544	2.5250	2.4948	2.4640
-.800	2.8660	2.8442	2.8216	2.7994	2.7760	2.7520	2.7274	2.7020	2.6762	2.6496	2.6222	2.5942	2.5654	2.5362

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.4062	------	------	------	------	------	------	------	------	------	------	------	------
.700	.7540	0.6070	0.4078	------	------	------	------	------	------	------	------	------	------
.600	.9844	.8786	.7568	0.6092	0.4094	------	------	------	------	------	------	------	------
.500	1.1688	1.0828	.9882	.8822	.7598	0.6116	0.4110	------	------	------	------	------	------
.400	1.3268	1.2528	1.1734	1.0870	.9920	.8856	.7626	0.6140	0.4124	------	------	------	------
.300	1.4670	1.4016	1.3322	1.2580	1.1782	1.0914	.9960	.8890	.7656	0.6162	0.4140	------	------
.250	1.5318	1.4698	1.4044	1.3348	1.2604	1.1804	1.0934	.9978	.8906	.7670	.6174	0.4148	------
.200	1.5940	1.5348	1.4728	1.4072	1.3374	1.2628	1.1826	1.0956	.9998	.8924	.7684	.6186	0.4156
.150	1.6534	1.5972	1.5380	1.4756	1.4100	1.3400	1.2654	1.1850	1.0976	1.0016	.8940	.7698	.6196
.100	1.7106	1.6568	1.6004	1.5412	1.4788	1.4126	1.3426	1.3678	1.1872	1.0998	1.0034	.8956	.7712
.075	1.7384	1.6858	1.6306	1.5726	1.5120	1.4476	1.3796	1.3072	1.2294	1.1456	1.0538	.9520	.8368
.050	1.7660	1.7142	1.6600	1.6034	1.5442	1.4816	1.4154	1.3452	1.2704	1.1894	1.1018	1.0054	.8972
.025	1.7928	1.7418	1.6892	1.6338	1.5760	1.5148	1.4506	1.3822	1.3096	1.2320	1.1478	1.0558	.9538
0	1.8192	1.7696	1.7176	1.6634	1.6068	1.5472	1.4844	1.4182	1.3480	1.2728	1.1916	1.1040	1.0072
-.025	1.8452	1.7964	1.7456	1.6924	1.6372	1.5788	1.5176	1.4534	1.3848	1.3122	1.2342	1.1498	1.0578
-.050	1.8708	1.8228	1.7730	1.7210	1.6668	1.6098	1.5502	1.4874	1.4210	1.3504	1.2750	1.1938	1.1060
-.075	1.8960	1.8490	1.8000	1.7490	1.6958	1.6404	1.5820	1.5208	1.4560	1.3876	1.3146	1.2364	1.1522
-.100	1.9210	1.8746	1.8266	1.7766	1.7244	1.6700	1.6130	1.5532	1.4902	1.4236	1.3530	1.2774	1.1962
-.150	1.9696	1.9246	1.8784	1.8304	1.7802	1.7278	1.6732	1.6162	1.5564	1.4932	1.4266	1.3556	1.2798
-.200	2.0166	1.9734	1.9286	1.8822	1.8340	1.7836	1.7312	1.6766	1.6194	1.5592	1.4960	1.4292	1.3582
-.250	2.0628	2.0208	1.9774	1.9326	1.8862	1.8376	1.7872	1.7348	1.6800	1.6224	1.5624	1.4988	1.4318
-.300	2.1076	2.0670	2.0250	1.9814	1.9368	1.8896	1.8410	1.7906	1.7380	1.6830	1.6256	1.5652	1.5018
-.400	2.1940	2.1460	2.1164	2.0754	2.0334	1.9896	1.9442	1.8974	1.8484	1.7978	1.7448	1.6896	1.6318
-.500	2.2770	2.2406	2.2032	2.1646	2.1250	2.0838	2.0414	1.9976	1.9520	1.9046	1.8558	1.8046	1.7516
-.600	2.3562	2.3218	2.2862	2.2498	2.2124	2.1734	2.1334	2.0922	2.0494	2.0052	1.9594	1.9120	1.8628
-.700	2.4324	2.3998	2.3660	2.3314	2.2958	2.2590	2.2212	2.1824	2.1420	2.1004	2.0572	2.0132	1.9672
-.800	2.5058	2.4744	2.4424	2.4096	2.3760	2.3408	2.3050	2.2682	2.2300	2.1908	2.1504	2.1086	2.0654

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.45]$

P_1 $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6562	1.6068	1.5546	1.5000	1.4420	1.3806	1.3152	1.2452	1.1696	1.0874	0.9970	0.8960	0.7798	0.6408
.700	1.7586	1.7128	1.6658	1.6158	1.5634	1.5082	1.4500	1.3882	1.3222	1.2518	1.1758	1.0932	1.0022	.9006
.600	1.8536	1.8124	1.7688	1.7230	1.6750	1.6250	1.5722	1.5166	1.4578	1.3956	1.3292	1.2582	1.1820	1.0988
.500	1.9446	1.9058	1.8652	1.8228	1.7786	1.7326	1.6842	1.6338	1.5806	1.5248	1.4654	1.4026	1.3362	1.2646
.400	2.0300	1.9934	1.9558	1.9166	1.8756	1.8330	1.7886	1.7422	1.6936	1.6424	1.5890	1.5326	1.4732	1.4100
.300	2.1112	2.0772	2.0420	2.0052	1.9670	1.9274	1.8862	1.8432	1.7984	1.7516	1.7026	1.6514	1.5976	1.5404
.250	2.1506	2.1174	2.0834	2.0478	2.0110	1.9726	1.9328	1.8916	1.8482	1.8032	1.7562	1.7070	1.6558	1.6014
.200	2.1890	2.1568	2.1240	2.0894	2.0536	2.0166	1.9782	1.9384	1.8966	1.8534	1.8080	1.7608	1.7116	1.6598
.150	2.2268	2.1958	2.1632	2.1300	2.0952	2.0594	2.0224	1.9838	1.9434	1.9018	1.8582	1.8130	1.7658	1.7160
.100	2.2632	2.2330	2.2018	2.1694	2.1360	2.1016	2.0654	2.0282	1.9890	1.9490	1.9068	1.8632	1.8178	1.7702
.075	2.2814	2.2514	2.2208	2.1890	2.1560	2.1218	2.0864	2.0498	2.0114	1.9718	1.9306	1.8878	1.8434	1.7966
.050	2.2988	2.2698	2.2396	2.2084	2.1758	2.1420	2.1072	2.0712	2.0336	1.9946	1.9540	1.9120	1.8884	1.8224
.025	2.3170	2.2880	2.2584	2.2274	2.1954	2.1622	2.1282	2.0924	2.0552	2.0172	1.9772	1.9358	1.8930	1.8480
0	2.3346	2.3060	2.2768	2.2462	2.2146	2.1822	2.1482	2.1130	2.0768	2.0392	2.0002	1.9592	1.9172	1.8730
-.025	2.3520	2.3238	2.2950	2.2648	2.2336	2.2016	2.1684	2.1338	2.0980	2.0610	2.0226	1.9826	1.9412	1.8978
-.050	2.3692	2.3414	2.3130	2.2834	2.2526	2.2210	2.1882	2.1544	2.1190	2.0826	2.0448	2.0052	1.9646	1.9222
-.075	2.3862	2.3588	2.3308	2.3016	2.2714	2.2402	2.2078	2.1746	2.1396	2.1030	2.0666	2.0278	1.9878	1.9460
-.100	2.4032	2.3760	2.3484	2.3196	2.2900	2.2592	2.2274	2.1944	2.1602	2.1248	2.0882	2.0504	2.0108	1.9696
-.150	2.4364	2.4102	2.3832	2.3552	2.3264	2.2964	2.2658	2.2330	2.2004	2.1662	2.1306	2.0938	2.0558	2.0160
-.200	2.4692	2.4436	2.4174	2.3902	2.3620	2.3332	2.3030	2.2722	2.2398	2.2068	2.0722	2.1366	2.0996	2.0610
-.250	2.5012	2.4766	2.4510	2.4244	2.3972	2.3690	2.3396	2.3100	2.2784	2.2462	2.2126	2.1780	2.1422	2.1050
-.300	2.5328	2.5088	2.4840	2.4582	2.4316	2.4042	2.3758	2.3464	2.3160	2.2848	2.2522	2.2186	2.1840	2.1478
-.400	2.5940	2.5716	2.5484	2.5240	2.4988	2.4726	2.4458	2.4180	2.3892	2.3596	2.3292	2.2974	2.2646	2.2306
-.500	2.6546	2.6328	2.6104	2.5874	2.5634	2.5386	2.5134	2.4870	2.4596	2.4318	2.4024	2.3728	2.3416	2.3098
-.600	2.7124	2.6918	2.6708	2.6486	2.6260	2.6026	2.5784	2.5536	2.5274	2.5012	2.4734	2.4450	2.4160	2.3856
-.700	2.7686	2.7490	2.7292	2.7086	2.6866	2.6642	2.6412	2.6178	2.5934	2.5680	2.5418	2.5148	2.4874	2.4580
-.800	2.8234	2.8046	2.7860	2.7660	2.7454	2.7244	2.7026	2.6800	2.6568	2.6330	2.6078	2.5822	2.5562	2.5288

P_1 $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.4584	0.0834	------	------	------	------	------	------	------	------	------	------	------
.700	.7836	.6442	0.4606	0.0838	------	------	------	------	------	------	------	------	------
.600	1.0072	.9050	.7878	.6472	0.4634	0.[illegible]842	------	------	------	------	------	------	------
.500	1.1878	1.1042	1.0122	.9094	.7916	.6504	0.4650	0.0846	------	------	------	------	------
.400	1.3428	1.2710	1.1936	1.1096	1.0172	.9140	.7954	.6536	0.4672	0.0850	------	------	------
.300	1.4806	1.4172	1.3498	1.2774	1.1996	1.1156	1.0222	.9184	.7992	.6566	0.4694	0.0854	------
.250	1.5444	1.4846	1.4208	1.3530	1.2808	1.2024	1.1178	1.0246	.9204	.8010	.6580	.4704	0.0856
.200	1.6056	1.5486	1.4882	1.4244	1.3564	1.2838	1.2056	1.1204	1.0270	.9226	.8030	.6596	.4716
.150	1.6640	1.6096	1.5526	1.4920	1.4278	1.3598	1.2870	1.2084	1.1230	1.0296	.9248	.8046	.6610
.100	1.7204	1.6684	1.6138	1.5564	1.4958	1.4314	1.3632	1.2900	1.2112	1.1258	1.0320	.9268	.8066
.075	1.7480	1.6970	1.6434	1.5874	1.5284	1.4658	1.3996	1.3288	1.2528	1.1710	1.0814	.9820	.8702
.050	1.7746	1.7248	1.6728	1.6176	1.5602	1.4994	1.4350	1.3664	1.2932	1.2142	1.1286	1.0342	.9290
.025	1.8012	1.7524	1.7014	1.6478	1.5914	1.5320	1.4696	1.4030	1.3318	1.2560	1.1738	1.0838	.9844
0	1.8270	1.7798	1.7294	1.6768	1.6218	1.5642	1.5030	1.4384	1.3698	1.2962	1.2170	1.1310	1.0366
-.025	1.8528	1.8056	1.7568	1.7056	1.6518	1.5954	1.5360	1.4730	1.4062	1.3352	1.2588	1.1764	1.1862
-.050	1.8778	1.8318	1.7838	1.7336	1.6810	1.6258	1.5680	1.5066	1.4418	1.3730	1.2992	1.2200	1.1336
-.075	1.9028	1.8576	1.8106	1.7614	1.7100	1.6560	1.5994	1.5398	1.4766	1.4098	1.3384	1.2616	1.1792
-.100	1.9270	1.8828	1.8368	1.7888	1.7382	1.6854	1.6302	1.5718	1.5104	1.4454	1.3764	1.3024	1.2228
-.150	1.9750	1.9320	1.8876	1.8412	1.7930	1.7424	1.6896	1.6340	1.5756	1.5142	1.4490	1.3794	1.3056
-.200	2.0212	1.9800	1.9372	1.8926	1.8460	1.7978	1.7468	1.6936	1.6378	1.5794	1.5176	1.4522	1.3828
-.250	2.0664	2.0266	1.9854	1.9420	1.8974	1.8506	1.8020	1.7510	1.6978	1.6422	1.5832	1.5212	1.4556
-.300	2.1104	2.0720	2.0320	1.9902	1.9474	1.9020	1.8556	1.8064	1.7554	1.7020	1.6460	1.5870	1.5250
-.400	2.1956	2.1592	2.1218	2.0826	2.0422	1.9992	1.9570	1.9116	1.8644	1.8152	1.7638	1.7100	1.6536
-.500	2.2766	2.2424	2.2072	2.1706	2.1326	2.0928	2.0528	2.0106	1.9668	1.9212	1.8736	1.8240	1.7722
-.600	2.3542	2.3220	2.2888	2.2546	2.2186	2.1818	2.1436	2.1042	2.0634	2.0204	1.9766	1.9304	1.8826
-.700	2.4288	2.3984	2.3670	2.3344	2.3006	2.2658	2.2302	2.1928	2.1544	2.1146	2.0734	2.0302	1.9860
-.800	2.5006	2.4722	2.4420	2.4110	2.3792	2.3464	2.3128	2.2776	2.2412	2.2040	2.1650	2.1246	2.0832

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.50]$

P_1 / $\frac{\Delta H}{q_o}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6504	1.6040	1.5546	1.5026	1.4474	1.3884	1.3258	1.2584	1.1856	1.1066	1.0194	0.9222	0.8110	0.6796
.700	1.7498	1.7072	1.6626	1.6154	1.5658	1.5130	1.4574	1.3978	1.3348	1.2668	1.1934	1.1136	1.0260	.9280
.600	1.8430	1.8038	1.7626	1.7198	1.6744	1.6268	1.5766	1.5232	1.4670	1.4072	1.3434	1.2750	1.2010	1.1208
.500	1.9302	1.8942	1.8564	1.8168	1.7752	1.7318	1.6860	1.6380	1.5872	1.5336	1.4768	1.4164	1.3522	1.2830
.400	2.0130	1.9796	1.9446	1.9080	1.8700	1.8298	1.7878	1.7438	1.6976	1.6490	1.5978	1.5436	1.4864	1.4258
.300	2.0916	2.0606	2.0280	1.9940	1.9586	1.9216	1.8832	1.8424	1.8000	1.7556	1.7090	1.6600	1.6082	1.5538
.250	2.1296	2.0996	2.0682	2.0356	2.0012	1.9656	1.9286	1.8896	1.8488	1.8062	1.7614	1.7144	1.6652	1.6132
.200	2.1666	2.1376	2.1072	2.0758	2.0428	2.0082	1.9726	1.9352	1.8962	1.8552	1.8122	1.7672	1.7202	1.6706
.150	2.2030	2.1748	2.1456	2.1152	2.0842	2.0504	2.0156	1.9796	1.9418	1.9026	1.8614	1.8182	1.7732	1.7260
.100	2.2384	2.2112	2.1830	2.1536	2.1228	2.0910	2.0576	2.0228	1.9864	1.9484	1.9090	1.8676	1.8242	1.7788
.075	2.2558	2.2292	2.2014	2.1726	2.1422	2.1108	2.0780	2.0438	2.0082	1.9710	1.9322	1.8916	1.8492	1.8048
.050	2.2730	2.2468	2.2194	2.1910	2.1614	2.1306	2.0982	2.0648	2.0298	1.9932	1.9550	1.9154	1.8738	1.8302
.025	2.2900	2.2644	2.2374	2.2094	2.1804	2.1500	2.1186	2.0856	2.0514	2.0150	1.9776	1.9386	1.8978	1.8552
0	2.3068	2.2818	2.2552	2.2278	2.1990	2.1692	2.1384	2.1058	2.0720	2.0368	2.0000	1.9616	1.9218	1.8800
-.025	2.3236	2.2990	2.2728	2.2460	2.2174	2.1984	2.1578	2.1258	2.0926	2.0580	2.0220	1.9844	1.9450	1.9042
-.050	2.3396	2.3160	2.2904	2.2638	2.2358	2.2072	2.1770	2.1460	2.1132	2.0790	2.0436	2.0066	1.9684	1.9280
-.075	2.3568	2.3326	2.3076	2.2814	2.2540	2.2258	2.1962	2.1654	2.1332	2.0998	2.0650	2.0288	1.9908	1.9516
-.100	2.3730	2.3494	2.3246	2.2990	2.2720	2.2440	2.2152	2.1848	2.1532	2.1204	2.0862	2.0506	2.0134	1.9748
-.150	2.4052	2.3822	2.3584	2.3334	2.3072	2.2802	2.2524	2.2230	2.1924	2.1608	2.1278	2.0932	2.0574	2.0200
-.200	2.4366	2.4146	2.3912	2.3672	2.3420	2.3160	2.2888	2.2604	2.2306	2.2000	2.1682	2.1348	2.1002	2.0642
-.250	2.4678	2.4462	2.4238	2.4004	2.3760	2.3508	2.3244	2.2968	2.2682	2.2386	2.2076	2.1756	2.1420	2.1072
-.300	2.4978	2.4772	2.4554	2.4328	2.4092	2.3848	2.3592	2.3326	2.3048	2.2762	2.2462	2.2152	2.1828	2.1494
-.400	2.5574	2.5378	2.5174	2.4962	2.4740	2.4510	2.4270	2.4020	2.3762	2.3492	2.3212	2.2918	2.2616	2.2304
-.500	2.6146	2.5964	2.5770	2.5574	2.5364	2.5150	2.4924	2.4690	2.4446	2.4194	2.3928	2.3656	2.3370	2.3074
-.600	2.6702	2.6534	2.6352	2.6164	2.5970	2.5766	2.5554	2.5334	2.5104	2.4866	2.4620	2.4362	2.4092	2.3818
-.700	2.7242	2.7082	2.6912	2.6738	2.6554	2.6364	2.6164	2.5956	2.5740	2.5516	2.5284	2.5042	2.4788	2.4528
-.800	2.7766	2.7618	2.7456	2.7294	2.7120	2.6942	2.6754	2.6560	2.6356	2.6146	2.5926	2.5696	2.5458	2.5212

P_1 / $\frac{\Delta H}{q_o}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.5116	0.2410	------	------	------	------	------	------	------	------	------	------	------
.700	.8162	.6836	0.5144	0.2426	------	------	------	------	------	------	------	------	------
.600	1.0326	.9338	.8210	.6876	0.5176	0.2440	------	------	------	------	------	------	------
.500	1.2088	1.1276	1.0386	.9394	.8259	.6918	0.5206	0.2454	------	------	------	------	------
.400	1.3608	1.2912	1.2162	1.1344	1.0448	.9450	.8308	.6956	0.5236	0.2468	------	------	------
.300	1.4960	1.4346	1.3692	1.2992	1.2236	1.1414	1.0512	.9506	.8356	.6996	0.5262	0.2480	------
.250	1.5588	1.5006	1.4390	1.3734	1.3028	1.2272	1.1448	1.0542	.9532	.8380	.7016	.5280	0.2483
.200	1.6188	1.5636	1.5052	1.4434	1.3774	1.3070	1.2308	1.1482	1.0572	.9558	.8404	.7034	.5292
.150	1.6762	1.6236	1.5684	1.5100	1.4476	1.3818	1.3108	1.2342	1.1514	1.0598	.9588	.8426	.7054
.100	1.7316	1.6812	1.6286	1.5734	1.5144	1.4522	1.3858	1.3146	1.2380	1.1548	1.0634	.9614	.8448
.075	1.7586	1.7094	1.6580	1.6040	1.5466	1.4862	1.4218	1.3530	1.2790	1.1990	1.1118	1.0154	.9062
.050	1.7848	1.7368	1.6866	1.6542	1.5780	1.5192	1.4566	1.3900	1.3186	1.2410	1.1580	1.0662	.9638
.025	1.8110	1.7640	1.7146	1.6632	1.6088	1.5516	1.4906	1.4258	1.3570	1.2828	1.2024	1.1150	1.0178
0	1.8364	1.7904	1.7422	1.6920	1.6388	1.5830	1.5238	1.4610	1.3940	1.3222	1.2452	1.1614	1.0688
-.025	1.8614	1.8164	1.7694	1.7202	1.6682	1.6138	1.5560	1.4952	1.4300	1.3610	1.2864	1.2060	1.1176
-.050	1.8862	1.8422	1.7960	1.7480	1.6970	1.6440	1.5876	1.5284	1.4654	1.3982	1.3262	1.2488	1.1642
-.075	1.9106	1.8674	1.8222	1.7750	1.7252	1.6736	1.6186	1.5608	1.4996	1.4344	1.3648	1.2902	1.2088
-.100	1.9346	1.8920	1.8478	1.8018	1.7532	1.7024	1.6488	1.5924	1.5326	1.4694	1.4022	1.3300	1.2518
-.150	1.9814	1.9406	1.8980	1.8538	1.8070	1.7588	1.7076	1.6538	1.5972	1.5372	1.4738	1.4062	1.3320
-.200	2.0270	1.9876	1.9468	1.9040	1.8594	1.8130	1.7640	1.7128	1.6588	1.6018	1.5416	1.4780	1.4096
-.250	2.0714	2.0332	1.9938	1.9530	1.9098	1.8654	1.8184	1.7694	1.7178	1.6636	1.6066	1.5462	1.4816
-.300	2.1146	2.0780	2.0396	2.0004	1.9590	1.9160	1.8710	1.8238	1.7746	1.7228	1.6686	1.6112	1.5500
-.400	2.1980	2.1634	2.1278	2.0912	2.0526	2.0130	1.9714	1.9278	1.8824	1.8348	1.7852	1.7328	1.6774
-.500	2.2772	2.2448	2.2118	2.1774	2.1416	2.1046	2.0656	2.0252	1.9834	1.9394	1.8934	1.8456	1.7948
-.600	2.3530	2.3228	2.2918	2.2598	2.2260	2.1914	2.1552	2.1174	2.0782	2.0376	1.9952	1.9508	1.9040
-.700	2.4260	2.3976	2.3684	2.3382	2.3066	2.2742	2.2402	2.2050	2.1684	2.1304	2.0908	2.0496	2.0064
-.800	2.4960	2.4692	2.4420	2.4136	2.3838	2.3532	2.3212	2.2884	2.2542	2.2184	2.1816	2.1432	2.1026

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continu

$[M_o = 0.55]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6436	1.6002	1.5540	1.5048	1.4526	1.3966	1.3370	1.2728	1.2030	1.1274	1.0436	0.9504	0.8442	0.7202
.700	1.7396	1.7002	1.6586	1.6142	1.5674	1.5178	1.4676	1.4086	1.3480	1.2830	1.2126	1.1362	1.0516	.9576
.600	1.8294	1.7936	1.7558	1.7152	1.6730	1.6286	1.5808	1.5306	1.4770	1.4200	1.3588	1.2930	1.2220	1.1444
.500	1.9138	1.8810	1.8506	1.8098	1.7712	1.7306	1.6876	1.6424	1.5942	1.5432	1.4890	1.4314	1.3694	1.3030
.400	1.9936	1.9626	1.9316	1.8984	1.8628	1.8258	1.7866	1.7454	1.7018	1.6558	1.6072	1.5556	1.5004	1.4424
.300	2.0696	2.0418	2.0126	1.9822	1.9492	1.9152	1.8792	1.8416	1.8018	1.7598	1.7158	1.6694	1.6200	1.5678
.250	2.1058	2.0794	2.0512	2.0216	1.9904	1.9576	1.9236	1.8874	1.8494	1.8092	1.7672	1.7230	1.6758	1.6264
.200	2.1416	2.1160	2.0892	2.0610	2.0308	1.9994	1.9664	1.9320	1.8952	1.8570	1.8168	1.7746	1.7296	1.6824
.150	2.1764	2.1520	2.1260	2.0986	2.0698	2.0398	2.0082	1.9750	1.9400	1.9032	1.8648	1.8244	1.7814	1.7364
.100	2.2104	2.1868	2.1618	2.1360	2.1082	2.0792	2.0490	2.0166	1.9832	1.9482	1.9112	1.8722	1.8316	1.7884
.075	2.2272	2.2040	2.1798	2.1540	2.1268	2.0984	2.0688	2.0376	2.0046	1.9700	1.9340	1.8960	1.8558	1.8136
.050	2.2436	2.2212	2.1970	2.1720	2.1454	2.1178	2.0882	2.0578	2.0254	1.9916	1.9562	1.9190	1.8800	1.8388
.025	2.2604	2.2380	2.2146	2.1898	2.1638	2.1366	2.1078	2.0778	2.0462	2.0130	1.9782	1.9420	1.9036	1.8634
0	2.2766	2.2546	2.2316	2.2076	2.1816	2.1552	2.1272	2.0976	2.0666	2.0342	2.0000	1.9644	1.9268	1.8874
-.025	2.2924	2.2712	2.2486	2.2248	2.1998	2.1736	2.1460	2.1172	2.0866	2.0550	2.0214	1.9866	1.9498	1.9110
-.050	2.3084	2.2876	2.2654	2.2422	2.2176	2.1918	2.1652	2.1366	2.1066	2.0752	2.0426	2.0084	1.9722	1.9346
-.075	2.3240	2.3036	2.2820	2.2590	2.2350	2.2094	2.1832	2.1558	2.1264	2.0956	2.0634	2.0298	1.9944	1.9574
-.100	2.3400	2.3198	2.2984	2.2760	2.2524	2.2276	2.2016	2.1744	2.1456	2.1158	2.0840	2.0514	2.0164	1.9802
-.150	2.3706	2.3512	2.3308	2.3092	2.2862	2.2628	2.2378	2.2116	2.1836	2.1548	2.1246	2.0930	2.0596	2.0246
-.200	2.4010	2.3824	2.3626	2.3418	2.3198	2.2970	2.2728	2.2478	2.2210	2.1932	2.1640	2.1334	2.1012	2.0678
-.250	2.4304	2.4126	2.3938	2.3738	2.3528	2.3306	2.3074	2.2832	2.2574	2.2304	2.2026	2.1732	2.1422	2.1098
-.300	2.4594	2.4426	2.4252	2.4050	2.3848	2.3638	2.3412	2.3178	2.2930	2.2670	2.2398	2.2120	2.1818	2.1508
-.400	2.5164	2.5006	2.4834	2.4662	2.4470	2.4274	2.4068	2.3848	2.3622	2.3380	2.3128	2.2866	2.2588	2.2302
-.500	2.5712	2.5568	2.5410	2.5246	2.5074	2.4890	2.4698	2.4498	2.4280	2.4060	2.3824	2.3580	2.3322	2.3052
-.600	2.6244	2.6110	2.5968	2.5814	2.5654	2.5488	2.5308	2.5120	2.4922	2.4714	2.4496	2.4268	2.4026	2.3778
-.700	2.6746	2.6636	2.6506	2.6366	2.6218	2.6060	2.5896	2.5726	2.5536	2.5344	2.5142	2.4928	2.4706	2.4470
-.800	2.7256	2.7140	2.7024	2.6898	2.6760	2.6616	2.6464	2.6302	2.6132	2.5952	2.5762	2.5566	2.5356	2.5138

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.5650	0.3402	------	------	------	------	------	------	------	------	------	------	------
.700	.8508	.7254	0.5692	0.3426	------	------	------	------	------	------	------	------	------
.600	1.0596	.9648	.8570	.7306	0.5732	0.3450	------	------	------	------	------	------	------
.500	1.2312	1.1532	1.0674	.9720	.8632	.7358	0.5772	0.3474	------	------	------	------	------
.400	1.3800	1.3130	1.2406	1.1618	1.0752	.9788	.8694	.7408	0.5810	0.3498	------	------	------
.300	1.5124	1.4534	1.3904	1.3228	1.2496	1.1702	1.0830	.9856	.8754	.7460	0.5850	0.3520	------
.250	1.5740	1.5184	1.4588	1.3956	1.3274	1.2542	1.1744	1.0866	.9890	.8784	.7484	.5868	0.3532
.200	1.6328	1.5800	1.5238	1.4644	1.4006	1.3324	1.2586	1.1784	1.0904	.9924	.8812	.7508	.5888
.150	1.6892	1.6390	1.5860	1.5296	1.4696	1.4058	1.3374	1.2628	1.1826	1.0940	.9958	.8840	.7534
.100	1.7438	1.6956	1.6452	1.5920	1.5352	1.4750	1.4108	1.3420	1.2674	1.1866	1.0978	.9990	.8870
.075	1.7698	1.7230	1.6740	1.6220	1.5670	1.5086	1.4462	1.3794	1.3076	1.2302	1.1454	1.0514	.9464
.050	1.7956	1.7502	1.7020	1.6514	1.5976	1.5410	1.4806	1.4158	1.3464	1.2718	1.1908	1.1014	1.0026
.025	1.8210	1.7766	1.7296	1.6802	1.6278	1.5728	1.5140	1.4512	1.3842	1.3122	1.2342	1.1494	1.0552
0	1.8462	1.8024	1.7568	1.7086	1.6574	1.6036	1.5468	1.4856	1.4208	1.3512	1.2762	1.1946	1.1052
-.025	1.8708	1.8282	1.7834	1.7362	1.6864	1.6342	1.5784	1.5192	1.4562	1.3888	1.3168	1.2384	1.1530
-.050	1.8948	1.8532	1.8094	1.7636	1.7148	1.6638	1.6096	1.5520	1.4908	1.4258	1.3560	1.2806	1.1986
-.075	1.9188	1.8782	1.8350	1.7902	1.7426	1.6928	1.6400	1.5838	1.5246	1.4616	1.3938	1.3210	1.2426
-.100	1.9422	1.9024	1.8602	1.8162	1.7700	1.7214	1.6700	1.6152	1.5574	1.4960	1.4308	1.3606	1.2848
-.150	1.9880	1.9498	1.9094	1.8676	1.8232	1.7768	1.7276	1.6756	1.6210	1.5630	1.5014	1.4356	1.3650
-.200	2.0326	1.9960	1.9574	1.9170	1.8744	1.8298	1.7834	1.7338	1.6816	1.6266	1.5686	1.5064	1.4406
-.250	2.0758	2.0408	2.0038	1.9650	1.9242	1.8818	1.8368	1.7894	1.7398	1.6878	1.6322	1.5738	1.5114
-.300	2.1182	2.0844	2.0486	2.0116	1.9724	1.9314	1.8886	1.8432	1.7960	1.7462	1.6936	1.6380	1.5792
-.400	2.1998	2.1682	2.1352	2.1008	2.0644	2.0270	1.9874	1.9458	1.9022	1.8566	1.8088	1.7580	1.7054
-.500	2.2776	2.2480	2.2174	2.1864	2.1516	2.1168	2.0802	2.0420	2.0016	1.9598	1.9158	1.9694	1.8214
-.600	2.3516	2.3242	2.2954	2.2660	2.2346	2.2022	2.1684	2.1326	2.0956	2.0568	2.0164	1.9738	1.9294
-.700	2.4226	2.3972	2.3704	2.3428	2.3136	2.2836	2.2522	2.2188	2.1842	2.1482	2.1106	2.0714	2.0306
-.800	2.4912	2.4674	2.4424	2.4166	2.3892	2.3612	2.3320	2.3008	2.2686	2.2352	2.2002	2.1636	2.1258

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.60]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6350	1.5950	1.5524	1.5066	1.4576	1.4050	1.3486	1.2876	1.2212	1.1490	1.0692	0.9806	0.8796	0.7624
.700	1.7276	1.6916	1.6534	1.6126	1.5690	1.5224	1.4728	1.4194	1.3620	1.3000	1.2330	1.1596	1.0792	.9894
.600	1.8140	1.7816	1.7470	1.7102	1.6714	1.6298	1.5854	1.5380	1.4874	1.4332	1.3752	1.3124	1.2440	1.1704
.500	1.8952	1.8658	1.8346	1.8014	1.7662	1.7288	1.6888	1.6466	1.6016	1.5534	1.5020	1.4470	1.3882	1.3246
.400	1.9718	1.9452	1.9170	1.8868	1.8548	1.8210	1.7848	1.7468	1.7062	1.6630	1.6172	1.5684	1.5164	1.4606
.300	2.0446	2.0202	1.9948	1.9674	1.9382	1.9076	1.8746	1.8402	1.8032	1.7644	1.7232	1.6794	1.6326	1.5832
.250	2.0796	2.0566	2.0320	2.0060	1.9784	1.9488	1.9176	1.8846	1.8496	1.8126	1.7732	1.7318	1.6872	1.6404
.200	2.1136	2.0918	2.0684	2.0436	2.0172	1.9890	1.9592	1.9278	1.8942	1.8590	1.8216	1.7820	1.7398	1.6952
.150	2.1472	2.1262	2.1040	2.0800	2.0550	2.0282	1.9996	1.9696	1.9378	1.9040	1.8682	1.8308	1.7904	1.7482
.100	2.1798	2.1598	2.1386	2.1158	2.0914	2.0662	2.0392	2.0104	1.9798	1.9476	1.9134	1.8776	1.8392	1.7988
.075	2.1958	2.1764	2.1556	2.1334	2.1100	2.0850	2.0582	2.0302	2.0004	1.9688	1.9356	1.9004	1.8630	1.8238
.050	2.2116	2.1928	2.1724	2.1508	2.1278	2.1034	2.0774	2.0500	2.0210	1.9900	1.9574	1.9232	1.8864	1.8480
.025	2.2274	2.2088	2.1892	2.1680	2.1456	2.1216	2.0964	2.0694	2.0410	2.0106	1.9788	1.9452	1.9096	1.8720
0	2.2428	2.2252	2.2056	2.1850	2.1622	2.1396	2.1148	2.0884	2.0608	2.0312	2.0000	1.9672	1.9324	1.8956
-.025	2.2582	2.2406	2.2218	2.2018	2.1804	2.1574	2.1332	2.1074	2.0802	2.0512	2.0208	1.9888	1.9546	1.9188
-.050	2.2742	2.2564	2.2372	2.2182	2.1974	2.1750	2.1510	2.1262	2.0996	2.0712	2.0416	2.0102	1.9776	1.9416
-.075	2.2884	2.2716	2.2538	2.2346	2.2142	2.1924	2.1692	2.1446	2.1186	2.0910	2.0618	2.0312	1.9984	1.9640
-.100	2.3036	2.2872	2.2696	2.2508	2.2310	2.2094	2.1868	2.1628	2.1374	2.1104	2.0820	2.0518	2.0198	1.9862
-.150	2.3330	2.3172	2.3008	2.2828	2.2636	2.2432	2.2216	2.1988	2.1742	2.1484	2.1212	2.0926	2.0618	2.0296
-.200	2.3616	2.3470	2.3310	2.3140	2.2958	2.2766	2.2558	2.2338	2.2104	2.1856	2.1596	2.1320	2.1026	2.0718
-.250	2.3900	2.3758	2.3610	2.3448	2.3274	2.3090	2.2890	2.2680	2.2456	2.2220	2.1970	2.1706	2.1422	2.1128
-.300	2.4178	2.4044	2.3902	2.3748	2.3582	2.3406	2.3218	2.3016	2.2802	2.2574	2.2334	2.2082	2.1812	2.1530
-.400	2.4718	2.4598	2.4472	2.4332	2.4182	2.4022	2.3850	2.3666	2.3470	2.3260	2.3040	2.2806	2.2562	2.2300
-.500	2.5240	2.5134	2.5020	2.4896	2.4762	2.4614	2.4456	2.4290	2.4112	2.3920	2.3718	2.3502	2.3280	2.3036
-.600	2.5746	2.5654	2.5550	2.5440	2.5330	2.5186	2.5044	2.4890	2.4726	2.4552	2.4368	2.4170	2.3962	2.3742
-.700	2.6236	2.6154	2.6064	2.5964	2.5856	2.5738	2.5608	2.5470	2.5322	2.5162	2.4990	2.4814	2.4618	2.4414
-.800	2.6710	2.6638	2.6562	2.6472	2.6376	2.6270	2.6154	2.6032	2.5894	2.5748	2.5594	2.5430	2.5250	2.5062

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.6190	0.4244	------	------	------	------	------	------	------	------	------	------	------
.700	.8874	.7690	0.6242	0.4280	------	------	------	------	------	------	------	------	------
.600	1.0890	.9982	.8952	.7756	0.6294	0.4314	------	------	------	------	------	------	------
.500	1.2558	1.1810	1.0984	1.0066	.9028	.7820	0.6350	0.4348	------	------	------	------	------
.400	1.4010	1.3364	1.2670	1.1910	1.1080	1.0152	.9102	.7884	0.6400	0.4382	------	------	------
.300	1.5304	1.4738	1.4134	1.3482	1.2778	1.2012	1.1172	1.0236	.9176	.7946	0.6450	0.4416	------
.250	1.5904	1.5374	1.4804	1.4198	1.3540	1.2832	1.2062	1.1214	1.0278	.9212	.7978	.6474	0.4434
.200	1.6480	1.5980	1.5444	1.4870	1.4256	1.3600	1.2888	1.2112	1.1262	1.0318	.9252	.8008	.6498
.150	1.7032	1.6556	1.6050	1.5510	1.4936	1.4320	1.3656	1.2940	1.2162	1.1306	1.0358	.9286	.8038
.100	1.7562	1.7112	1.6632	1.6120	1.5580	1.4998	1.4378	1.3712	1.2994	1.2212	1.1352	1.0400	.9322
.075	1.7822	1.7380	1.6914	1.6416	1.5890	1.5326	1.4728	1.4082	1.3388	1.2636	1.1816	1.0910	.9898
.050	1.8074	1.7644	1.7190	1.6704	1.6192	1.5646	1.5064	1.4440	1.3772	1.3046	1.2258	1.1398	1.0438
.025	1.8324	1.7904	1.7460	1.6988	1.6488	1.5958	1.5390	1.4788	1.4142	1.3440	1.2686	1.1862	1.0952
0	1.8566	1.8158	1.7726	1.7264	1.6780	1.6262	1.5712	1.5126	1.4500	1.3824	1.3100	1.2308	1.1440
-.025	1.8810	1.8410	1.7986	1.7536	1.7064	1.6562	1.6026	1.5456	1.4848	1.4198	1.3496	1.2738	1.1908
-.050	1.9046	1.8656	1.8244	1.7804	1.7342	1.6852	1.6334	1.5778	1.5190	1.4558	1.3882	1.3150	1.2356
-.075	1.9280	1.8898	1.8494	1.8066	1.7616	1.7136	1.6632	1.6092	1.5522	1.4910	1.4256	1.3550	1.2786
-.100	1.9508	1.9136	1.8742	1.8322	1.7886	1.7418	1.6926	1.6400	1.5846	1.5252	1.4618	1.3938	1.3202
-.150	1.9958	1.9602	1.9224	1.8824	1.8406	1.7962	1.7494	1.6998	1.6470	1.5910	1.5312	1.4670	1.3990
-.200	2.0394	2.0054	1.9693	1.9312	1.8910	1.8488	1.8040	1.7566	1.7068	1.6538	1.5974	1.5376	1.4736
-.250	2.0818	2.0492	2.0146	1.9780	1.9398	1.8992	1.8566	1.8118	1.7644	1.7138	1.6606	1.6040	1.5436
-.300	2.1232	2.0918	2.0588	2.0236	1.9872	1.9486	1.9078	1.8648	1.8194	1.7716	1.7210	1.6672	1.6104
-.400	2.2028	2.1738	2.1434	2.1112	2.0774	2.0420	2.0050	1.9654	1.9242	1.8804	1.8346	1.7862	1.7350
-.500	2.2786	2.2518	2.2238	2.1942	2.1632	2.1306	2.0962	2.0600	2.0222	1.9822	1.9400	1.8962	1.8496
-.600	2.3508	2.3262	2.3006	2.2728	2.2444	2.2144	2.1826	2.1494	2.0146	2.0778	2.0392	1.9998	1.9564
-.700	2.4200	2.3974	2.3736	2.3486	2.3222	2.2942	2.2648	2.2342	2.2018	2.1680	2.1326	2.0952	2.0562
-.800	2.4864	2.4660	2.4438	2.4202	2.3962	2.3702	2.3432	2.3146	2.2852	2.2534	2.2210	2.1866	2.1504

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_0 = 0.65]$

p_1 $\frac{\Delta H}{q_0}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6246	1.5886	1.5498	1.5076	1.4622	1.4134	1.3606	1.3032	1.2404	1.1722	1.0964	1.0122	0.9168	0.8064
.700	1.7134	1.6814	1.6468	1.6100	1.5698	1.5270	1.4806	1.4306	1.3768	1.3182	1.2546	1.1850	1.1084	1.0230
.600	1.7962	1.7678	1.7372	1.7040	1.6686	1.6304	1.5896	1.5456	1.4982	1.4474	1.3926	1.3330	1.2682	1.1978
.500	1.8740	1.8486	1.8212	1.7920	1.7602	1.7262	1.6898	1.6508	1.6088	1.5640	1.5160	1.4640	1.4080	1.3478
.400	1.9472	1.9248	1.9004	1.8740	1.8458	1.8156	1.7828	1.7480	1.7106	1.6706	1.6278	1.5822	1.5330	1.4802
.300	2.0168	1.9968	1.9750	1.9514	1.9260	1.8988	1.8696	1.8384	1.8050	1.7692	1.7308	1.6902	1.6464	1.5998
.250	2.0502	2.0314	2.0108	1.9884	1.9646	1.9386	1.9112	1.8814	1.8496	1.8158	1.7796	1.7414	1.6996	1.6554
.200	2.0828	2.0652	2.0456	2.0246	2.0024	1.9776	1.9512	1.9232	1.8930	1.8608	1.8264	1.7900	1.7506	1.7090
.150	2.1146	2.0980	2.0798	2.0598	2.0384	2.0152	1.9904	1.9638	1.9352	1.9046	1.8720	1.8372	1.8004	1.7606
.100	2.1458	2.1308	2.1128	2.0944	2.0738	2.0520	2.0284	2.0032	1.9758	1.9470	1.9160	1.8832	1.8476	1.8102
.075	2.1612	2.1460	2.1294	2.1110	2.0912	2.0700	2.0470	2.0224	1.9958	1.9676	1.9376	1.9054	1.8708	1.8344
.050	2.1762	2.1616	2.1452	2.1276	2.1084	2.0878	2.0654	2.0414	2.0156	1.9880	1.9586	1.9274	1.8936	1.8582
.025	2.1912	2.1770	2.1612	2.1442	2.1256	2.1052	2.0836	2.0602	2.0350	2.0082	1.9794	1.9490	1.9164	1.8816
0	2.2060	2.1924	2.1770	2.1600	2.1422	2.1226	2.1014	2.0788	2.0542	2.0282	2.0002	1.9704	1.9384	1.9046
-.025	2.2206	2.2072	2.1932	2.1764	2.1590	2.1396	2.1192	2.0970	2.0732	2.0478	2.0202	1.9914	1.9602	1.9272
-.050	2.2350	2.2222	2.2080	2.1920	2.1754	2.1566	2.1366	2.1150	2.0918	2.0668	2.0404	2.0120	1.9816	1.9500
-.075	2.2494	2.2368	2.2224	2.2082	2.1914	2.1734	2.1538	2.1328	2.1102	2.0860	2.0600	2.0326	2.0028	1.9714
-.100	2.2634	2.2516	2.2384	2.2236	2.2074	2.1898	2.1710	2.1504	2.1284	2.1048	2.0796	2.0526	2.0234	1.9930
-.150	2.2914	2.2804	2.2682	2.2544	2.2390	2.2224	2.2044	2.1852	2.1640	2.1422	2.1176	2.0920	2.0644	2.0352
-.200	2.3188	2.3086	2.2970	2.2842	2.2700	2.2544	2.2372	2.2190	2.1990	2.1778	2.1548	2.1304	2.1042	2.0764
-.250	2.3464	2.3364	2.3254	2.3138	2.3002	2.2854	2.2694	2.2514	2.2332	2.2128	2.1912	2.1680	2.1428	2.1166
-.300	2.3722	2.3644	2.3534	2.3422	2.3296	2.3160	2.3008	2.2844	2.2664	2.2472	2.2266	2.2044	2.1806	2.1556
-.400	2.4236	2.4164	2.4080	2.3982	2.3870	2.3750	2.3614	2.3468	2.3310	2.3136	2.2950	2.2752	2.2534	2.2304
-.500	2.4736	2.4674	2.4602	2.4518	2.4422	2.4316	2.4202	2.4072	2.3928	2.3774	2.3606	2.3426	2.3230	2.3022
-.600	2.5212	2.5166	3.5108	2.5038	2.4958	2.4866	2.4766	2.4648	2.4524	2.4384	2.4234	2.4072	2.3894	2.3706
-.700	2.5672	2.5640	2.5596	2.5540	2.5472	2.5394	2.5306	2.5206	2.5096	2.4972	2.4840	2.4694	2.4532	2.4362
-.800	2.6122	2.6102	2.6068	2.6024	2.5972	2.5914	2.5852	2.5744	2.5646	2.5540	2.5420	2.5292	2.5146	2.4994

p_1 $\frac{\Delta H}{q_0}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.6736	0.5016	0.2072	------	------	------	------	------	------	------	------	------	------
.700	.9264	.8146	.6808	0.5066	0.2092	------	------	------	------	------	------	------	------
.600	1.1200	1.0334	.9358	.8226	.6872	0.5112	0.2112	------	------	------	------	------	------
.500	1.2820	1.2104	1.1316	1.0438	.9450	.8306	.6938	0.5160	0.2130	------	------	------	------
.400	1.4232	1.3620	1.2954	1.2228	1.1428	1.0542	.9540	.8388	.7002	0.5206	0.2150	------	------
.300	1.5496	1.4960	1.4384	1.3760	1.3084	1.2348	1.1540	1.0642	.9630	.8464	.7066	0.5252	0.2168
.250	1.6084	1.5580	1.5040	1.4458	1.3828	1.3148	1.2408	1.1596	1.0692	.9672	.8500	.7096	.5276
.200	1.6646	1.6170	1.5664	1.5116	1.4530	1.3898	1.3214	1.2468	1.1650	1.0742	.9718	.8540	.7126
.150	1.7184	1.6736	1.6258	1.5744	1.5192	1.4602	1.3968	1.3276	1.2524	1.1702	1.0790	.9760	.8576
.100	1.7704	1.7276	1.6826	1.6340	1.5822	1.5270	1.4674	1.4034	1.3340	1.2584	1.1756	1.0838	.9804
.075	1.7954	1.7542	1.7102	1.6628	1.6126	1.5590	1.5014	1.4394	1.3724	1.3002	1.2210	1.1334	1.0360
.050	1.8204	1.7800	1.7372	1.6912	1.6424	1.5904	1.5346	1.4744	1.4100	1.3402	1.2642	1.1808	1.0888
.025	1.8446	1.8054	1.7636	1.7190	1.6716	1.6208	1.5668	1.5086	1.4462	1.3790	1.3060	1.2262	1.1386
0	1.8684	1.8302	1.7896	1.7462	1.6998	1.6508	1.5982	1.5420	1.4816	1.4166	1.3462	1.2700	1.1860
-.025	1.8920	1.8548	1.8152	1.7728	1.7278	1.6800	1.6292	1.5742	1.5160	1.4530	1.3854	1.3120	1.2320
-.050	1.9152	1.8788	1.8404	1.7990	1.7552	1.7086	1.6590	1.6060	1.5492	1.4886	1.4232	1.3526	1.2758
-.075	1.9380	1.9026	1.8648	1.8246	1.7820	1.7368	1.6886	1.6370	1.5818	1.5234	1.4598	1.3916	1.3178
-.100	1.9604	1.9258	1.8890	1.8500	1.8084	1.7642	1.7172	1.6672	1.6138	1.5568	1.4956	1.4296	1.3586
-.150	2.0042	1.9714	1.9364	1.8990	1.8596	1.8174	1.7732	1.7258	1.6752	1.6214	1.5640	1.5024	1.4364
-.200	2.0470	2.0154	1.9824	1.9466	1.9090	1.8692	1.8268	1.7820	1.7342	1.6832	1.6290	1.5712	1.5092
-.250	2.0884	2.0584	2.0268	1.9926	1.9570	1.9188	1.8788	1.8366	1.7906	1.7424	1.6914	1.6364	1.5786
-.300	2.1286	2.1000	2.0698	2.0374	2.0032	1.9670	1.9290	1.8882	1.8450	1.7992	1.7508	1.6990	1.6440
-.400	2.2062	2.1802	2.1528	2.1232	2.0918	2.0590	2.0242	1.9872	1.9480	1.9066	1.8628	1.8164	1.7672
-.500	2.2800	2.2562	2.2312	2.2042	2.1758	2.1458	2.1138	2.0802	2.0446	2.0070	1.9670	1.9248	1.8804
-.600	2.3502	2.3288	2.3062	2.2814	2.2554	2.2280	2.1990	2.1680	2.1352	2.1010	2.0646	2.0262	1.9850
-.700	2.4178	2.3984	2.3776	2.3552	2.3312	2.3064	2.2796	2.2512	2.2212	2.1898	2.1566	2.1214	2.0844
-.800	2.4828	2.4650	2.4462	2.4254	2.4038	2.3808	2.3562	2.3306	2.3030	2.2742	2.2436	2.2114	2.1774

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TABLE II - **Continued**

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - **Continued**

$[M_0 = 0.70]$

P_1 / $\frac{\Delta H}{q_0}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.6122	1.5806	1.5458	1.5078	1.4664	1.4216	1.3724	1.3188	1.2602	1.1958	1.1244	1.0448	0.9550	0.8516
.700	1.6970	1.6692	1.6390	1.6058	1.5700	1.5308	1.4884	1.4420	1.3918	1.3370	1.2770	1.2114	1.1388	1.0578
.600	1.7760	1.7518	1.7254	1.6962	1.6648	1.6306	1.5936	1.5530	1.5094	1.4620	1.4106	1.3546	1.2936	1.2266
.500	1.8500	1.8292	1.8060	1.7806	1.7532	1.7230	1.6902	1.6548	1.6166	1.5750	1.5302	1.4816	1.4290	1.3724
.400	1.9198	1.9016	1.8816	1.8596	1.8352	1.8088	1.7800	1.7488	1.7150	1.6784	1.6390	1.5962	1.5504	1.5008
.300	1.9860	1.9704	1.9530	1.9336	1.9124	1.8890	1.8638	1.8360	1.8062	1.7738	1.7390	1.7014	1.6608	1.6172
.250	2.0178	2.0032	1.9872	1.9692	1.9494	1.9276	1.9036	1.8776	1.8494	1.8192	1.7862	1.7508	1.7124	1.6716
.200	2.0486	2.0354	2.0204	2.0038	1.9862	1.9648	1.9422	1.9178	1.8912	1.8628	1.8320	1.7984	1.7624	1.7238
.150	2.0788	2.0670	2.0530	2.0374	2.0202	2.0012	1.9800	1.9570	1.9322	1.9050	1.8758	1.8444	1.8104	1.7740
.100	2.1084	2.0974	2.0846	2.0702	2.0542	2.0362	2.0166	1.9950	1.9714	1.9462	1.9186	1.8888	1.8568	1.8224
.075	2.1230	2.1124	2.1002	2.0866	2.0708	2.0536	2.0346	2.0136	1.9908	1.9660	1.9392	1.9106	1.8792	1.8458
.050	2.1374	2.1274	2.1156	2.1024	2.0874	2.0706	2.0522	2.0320	2.0098	1.9860	1.9598	1.9320	1.9016	1.8690
.025	2.1514	2.1420	2.1308	2.1180	2.1036	2.0876	2.0696	2.0502	2.0286	2.0054	1.9802	1.9528	1.9234	1.8918
0	2.1656	2.1566	2.1460	2.1336	2.1196	2.1042	2.0870	2.0680	2.0472	2.0244	2.0000	1.9736	1.9450	1.9144
-.025	2.1794	2.1708	2.1608	2.1488	2.1356	2.1206	2.1040	2.0856	2.0656	2.0436	2.0198	1.9940	1.9662	1.9362
-.050	2.1934	2.1852	2.1754	2.1642	2.1512	2.1370	2.1208	2.1030	2.0834	2.0620	2.0390	2.0140	1.9870	1.9580
-.075	2.2068	2.1992	2.1900	2.1792	2.1670	2.1530	2.1372	2.1200	2.1012	2.0808	2.0582	2.0338	2.0076	1.9794
-.100	2.2204	2.2130	2.2044	2.1940	2.1822	2.1686	2.1538	2.1372	2.1188	2.0990	2.0770	2.0534	2.0278	2.0004
-.150	2.2470	2.2404	2.2326	2.2232	2.2124	2.1998	2.1858	2.1704	2.1534	2.1346	2.1140	2.0916	2.0676	2.0414
-.200	2.2730	2.2676	2.2604	2.2518	2.2420	2.2304	2.2176	2.2030	2.1870	2.1694	2.1500	2.1292	2.1062	2.0818
-.250	2.2984	2.2938	2.2874	2.2798	2.2708	2.2604	2.2484	2.2348	2.2198	2.2034	2.1852	2.1654	2.1438	2.1204
-.300	2.3234	2.3196	2.3140	2.3074	2.2990	2.2896	2.2784	2.2660	2.2520	2.2366	2.2194	2.2008	2.1804	2.1584
-.400	2.3716	2.3692	2.3658	2.3606	2.3542	2.3462	2.3370	2.3264	2.3140	2.3006	2.2856	2.2690	2.2512	2.2314
-.500	2.4186	2.4176	2.4158	2.4120	2.4068	2.4008	2.3932	2.3840	2.3738	2.3622	2.3490	2.3346	2.3186	2.3012
-.600	2.4640	2.4642	2.4634	2.4610	2.4578	2.4530	2.4470	2.4398	2.4312	2.4210	2.4098	2.3972	2.3830	2.3676
-.700	2.5078	2.5094	2.5096	2.5088	2.5068	2.5038	2.4992	2.4932	2.4862	2.4776	2.4660	2.4570	2.4448	2.4316
-.800	2.5502	2.5530	2.5556	2.5550	2.5542	2.5524	2.5492	2.5450	2.5394	2.5326	2.5242	2.5150	2.5060	2.4926

P_1 / $\frac{\Delta H}{q_0}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.7288	0.5744	0.3486	------	------	------	------	------	------	------	------	------	------
.700	.9666	.8616	.7364	0.5812	0.3528	------	------	------	------	------	------	------	------
.600	1.1526	1.0706	.9772	.8714	.7456	0.5876	0.3566	------	------	------	------	------	------
.500	1.3096	1.2414	1.1654	1.0830	.9890	.8812	.7536	0.5938	0.3602	------	------	------	------
.400	1.4472	1.3888	1.3244	1.2562	1.1800	1.0952	1.0000	.8908	.7616	0.5998	0.3640	------	------
.300	1.5702	1.5196	1.4634	1.4054	1.3410	1.2704	1.1930	1.1074	1.0108	.9000	.7698	0.6058	0.3674
.250	1.6276	1.5800	1.5274	1.4734	1.4136	1.3484	1.2776	1.1996	1.1132	1.0160	.9048	.7736	.6086
.200	1.6822	1.6374	1.5882	1.5378	1.4820	1.4216	1.3562	1.2846	1.2060	1.1190	1.0212	.9094	.7772
.150	1.7348	1.6928	1.6462	1.5992	1.5468	1.4904	1.4296	1.3636	1.2914	1.2124	1.1248	1.0264	.9136
.100	1.7854	1.7458	1.7018	1.6576	1.6086	1.5558	1.4988	1.4382	1.3710	1.2984	1.2188	1.1306	1.0316
.075	1.8100	1.7714	1.7286	1.6856	1.6384	1.5872	1.5322	1.4730	1.4086	1.3390	1.2626	1.1786	1.0852
.050	1.8342	1.7968	1.7550	1.7134	1.6672	1.6178	1.5646	1.5072	1.4452	1.3782	1.3052	1.2250	1.1362
.025	1,8580	1.8216	1.7810	1.7406	1.6960	1.6480	1.5964	1.5406	1.4810	1.4162	1.3460	1.2692	1.1846
0	1.8812	1.8458	1.8064	1.7672	1.7238	1.6772	1.6270	1.5734	1.5156	1.4532	1.3856	1.3118	1.2308
-.025	1.9042	1.8698	1.8312	1.7934	1.7510	1.7056	1.6574	1.6052	1.5492	1.4888	1.4238	1.3530	1.2740
-.050	1.9268	1.8932	1.8556	1.8190	1.7780	1.7338	1.6868	1.6364	1.5820	1.5236	1.4608	1.3926	1.3186
-.075	1.9488	1.9162	1.8798	1.8440	1.8042	1.7614	1.7156	1.6668	1.6142	1.5576	1.4968	1.4312	1.3598
-.100	1.9708	1.9392	1.9034	1.8688	1.8300	1.7884	1.7440	1.6964	1.6454	1.5904	1.5318	1.4682	1.3998
-.150	2.0136	1.9836	1.9496	1.9168	1.8800	1.8408	1.7988	1.7538	1.7056	1.6540	1.5992	1.5398	1.4760
-.200	2.0552	2.0266	1.9942	1.9634	1.9286	1.8914	1.8514	1.8092	1.7634	1.7152	1.6630	1.6076	1.5478
-.250	2.0956	2.0684	2.0378	2.0084	1.9754	1.9402	1.9024	1.8622	1.8190	1.7734	1.7244	1.6718	1.6158
-.300	2.1348	2.1092	2.0798	2.0522	2.0210	1.9874	1.9516	1.9134	1.8724	1.8292	1.7830	1.7334	1.6806
-.400	2.2104	2.1870	2.1606	2.1362	2.1078	2.0774	2.0450	2.0106	1.9738	1.9348	1.8932	1.8490	1.8018
-.500	2.2820	2.2614	2.2374	2.2154	2.1900	2.1624	2.1334	2.1020	2.0688	2.0334	1.9960	1.9560	1.9134
-.600	2.3506	2.3320	2.3102	2.2908	2.2678	2.2430	2.2168	2.1884	2.1582	2.1262	2.0922	2.0560	2.0258
-.700	2.4164	2.3996	2.3800	2.3628	2.3420	2.3198	2.2958	2.2702	2.2428	2.2136	2.1826	2.1500	2.1150
-.800	2.4794	2.4648	2.4466	2.4314	2.4130	2.3926	2.3702	2.3478	2.3230	2.2964	2.2684	2.2386	2.2072

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_0 = 0.75]$

P_1 / $\frac{\Delta H}{q_0}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.5976	1.5702	1.5402	1.5068	1.4700	1.4294	1.3844	1.3350	1.2804	1.2206	1.1538	1.0792	0.9948	0.8982
.700	1.6778	1.6554	1.6294	1.6008	1.5690	1.5342	1.4958	1.4536	1.4072	1.3566	1.3006	1.2390	1.1706	1.0946
.600	1.7528	1.7336	1.7118	1.6874	1.6602	1.6302	1.5970	1.5606	1.5208	1.4772	1.4296	1.3774	1.3200	1.2570
.500	1.8232	1.8070	1.7888	1.7678	1.7446	1.7186	1.6900	1.6586	1.6242	1.5864	1.5452	1.5002	1.4512	1.3976
.400	1.8894	1.8760	1.8608	1.8432	1.8232	1.8012	1.7762	1.7492	1.7192	1.6862	1.6504	1.6114	1.5690	1.5226
.300	1.9520	1.9414	1.9288	1.9140	1.8972	1.8782	1.8570	1.8332	1.8072	1.7786	1.7472	1.7132	1.6762	1.6356
.250	1.9822	1.9726	1.9612	1.9478	1.9324	1.9148	1.8952	1.8732	1.8490	1.8224	1.7930	1.7612	1.7264	1.6886
.200	2.0116	2.0034	1.9930	1.9810	1.9666	1.9508	1.9326	1.9122	1.8894	1.8646	1.8372	1.8074	1.7748	1.7394
.150	2.0400	2.0330	2.0240	2.0128	2.0002	1.9854	1.9688	1.9498	1.9288	1.9056	1.8798	1.8518	1.8214	1.7882
.100	2.0682	2.0620	2.0542	3.0444	2.0328	2.0196	2.0038	1.9864	1.9668	1.9450	1.9218	1.8950	1.8664	1.8352
.075	2.0816	2.0762	2.0690	2.0598	2.0488	2.0360	2.0212	2.0044	1.9854	1.9646	1.9414	1.9164	1.8882	1.8580
.050	2.0954	2.0904	2.0838	2.0748	2.0644	2.0522	2.0380	2.0220	2.0038	1.9836	1.9612	1.9366	1.9096	1.8806
.025	2.1088	2.1044	2.0982	2.0898	2.0798	2.0682	2.0548	2.0394	2.0218	2.0024	1.9808	1.9572	1.9310	1.9028
0	2.1218	2.1180	2.1120	2.1046	2.0954	2.0842	2.0712	2.0566	2.0398	2.0210	2.0002	1.9772	1.9520	1.9246
-.025	2.1350	2.1316	2.1264	2.1192	2.1106	2.1000	2.0876	2.0734	2.0572	2.0392	2.0190	1.9970	1.9726	1.9460
-.050	2.1480	2.1452	2.1406	2.1338	2.1256	2.1158	2.1038	2.0902	2.0746	2.0574	2.0378	2.0164	1.9930	1.9670
-.075	2.1608	2.1580	2.1542	2.1482	2.1406	2.1310	2.1198	2.1068	2.0918	2.0752	2.0564	2.0356	2.0128	1.9880
-.100	2.1736	2.1714	2.1686	2.1622	2.1550	2.1464	2.1356	2.1230	2.1088	2.0926	2.0746	2.0544	2.0324	2.0084
-.150	2.1988	2.1972	2.1948	2.1900	2.1840	2.1760	2.1664	2.1550	2.1420	2.1272	2.1102	2.0918	2.0710	2.0484
-.200	2.2230	2.2226	2.2208	2.2182	2.2120	2.2054	2.1968	2.1864	2.1744	2.1608	2.1452	2.1278	2.1086	2.0874
-.250	2.2472	2.2476	2.2466	2.2442	2.2398	2.2338	2.2262	2.2168	2.2060	2.1936	2.1790	2.1630	2.1450	2.1250
-.300	2.2700	2.2718	2.2718	2.2712	2.2668	2.2618	2.2550	2.2466	2.2368	2.2254	2.2122	2.1972	2.1804	2.1620
-.400	2.3164	2.3192	2.3208	2.3206	2.3190	2.3160	2.3112	2.3048	2.2968	2.2874	2.2762	2.2636	2.2490	2.2328
-.500	2.3606	2.3650	2.3680	2.3692	2.3692	2.3678	2.3650	2.3602	2.3542	2.3466	2.3374	2.3268	2.3144	2.3004
-.600	2.4032	2.4090	2.4134	2.4162	2.4176	2.4178	2.4162	2.4136	2.4092	3.4036	2.3960	2.3872	2.3770	2.3650
-.700	2.4446	2.4516	2.4574	2.4614	2.4644	2.4662	2.4660	2.4646	2.4620	2.4580	2.4524	2.4454	2.4368	2.4268
-.800	2.4842	2.4924	2.4996	2.5052	2.5096	2.5124	2.5142	2.5142	2.5128	2.5106	2.5066	2.5020	2.4944	2.4860

P_1 / $\frac{\Delta H}{q_0}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.7846	0.6452	0.4580	------	------	------	------	------	------	------	------	------	------
.700	1.0088	.9104	.7950	0.6538	0.4636	------	------	------	------	------	------	------	------
.600	1.1872	1.1098	1.0222	.9226	.8052	0.6618	0.4692	------	------	------	------	------	------
.500	1.3390	1.2746	1.2036	1.1242	1.0354	.9340	.8150	0.6696	0.4746	------	------	------	------
.400	1.4722	1.4174	1.3574	1.2918	1.2192	1.1388	1.0484	.9454	.8250	0.6778	0.4800	------	------
.300	1.5918	1.5446	1.4930	1.4368	1.3756	1.3086	1.2348	1.1530	1.0610	.9566	.8344	0.6852	0.4852
.250	1.6478	1.6032	1.5552	1.5030	1.4464	1.3846	1.3168	1.2422	1.1598	1.0672	.9618	.8390	.6890
.200	1.7010	1.6596	1.6148	1.5660	1.5130	1.4558	1.3932	1.3250	1.2498	1.1668	1.0734	.9674	.8436
.150	1.7522	1.7132	1.6712	1.6254	1.5764	1.5228	1.4648	1.4020	1.3330	1.2572	1.1734	1.0799	.9728
.100	1.8014	1.7648	1.7254	1.6826	1.6366	1.5868	1.5326	1.4740	1.4106	1.3410	1.2646	1.1802	1.0854
.075	1.8252	1.7900	1.7518	1.7102	1.6656	1.6176	1.5654	1.5086	1.4474	1.3806	1.3074	1.2270	1.1376
.050	1.8490	1.8146	1.7776	1.7376	1.6940	1.6472	1.5968	1.5422	1.4832	1.4192	1.3488	1.2718	1.1868
.025	1.8720	1.8388	1.8028	1.7640	1.7220	1.6768	1.6278	1.5750	1.5180	1.4560	1.3888	1.3150	1.2340
0	1.8948	1.8626	1.8276	1.7898	1.7492	1.7054	1.6580	1.6070	1.5518	1.4922	1.4274	1.3568	1.2792
-.025	1.9172	1.8858	1.8520	1.8154	1.7758	1.7336	1.6876	1.6382	1.5848	1.5272	1.4648	1.3968	1.3226
-.050	1.9392	1.9088	1.8760	1.8404	1.8020	1.7608	1.7166	1.6686	1.6170	1.5614	1.5010	1.4354	1.3642
-.075	1.9606	1.9314	1.8994	1.8648	1.8278	1.7878	1.7448	1.6984	1.6484	1.5946	1.5366	1.4732	1.4046
-.100	1.9820	1.9534	1.9226	1.8890	1.8530	1.8140	1.7724	1.7276	1.6792	1.6270	1.5706	1.5098	1.4438
-.150	2.0236	1.9968	1.9678	1.9360	1.9022	1.8656	1.8262	1.7838	1.7384	1.6894	1.6366	1.5800	1.5184
-.200	2.0638	2.0386	2.0114	1.9818	1.9496	1.9152	1.8780	1.8380	1.7952	1.7492	1.6994	1.6462	1.5892
-.250	2.1032	2.0796	2.0538	2.0258	1.9956	1.9630	1.9278	1.8900	1.8498	1.8064	1.7596	1.7096	1.6560
-.300	2.1416	2.1192	2.0950	2.0684	2.0398	2.0092	1.9760	1.9406	1.9024	1.8612	1.8174	1.7702	1.7198
-.400	2.2148	2.1954	2.1738	2.1504	2.1250	2.0976	2.0678	2.0360	2.0018	1.9652	1.9260	1.8840	1.8390
-.500	2.2850	2.2676	2.2488	2.2278	2.2052	2.1806	2.1544	2.1260	2.0952	2.0624	2.0270	1.9896	1.9494
-.600	2.3516	2.3364	2.3200	2.3016	2.2814	2.2584	2.2360	2.2104	2.1830	2.1536	2.1218	2.0878	2.0520
-.700	2.4152	2.4024	2.3878	2.3720	2.3540	2.3346	2.3136	2.2906	2.2660	2.2394	2.2112	2.1806	2.1480
-.800	2.4764	1.4656	2.4530	2.4390	2.4230	2.4062	2.3874	2.3668	2.3448	2.3210	2.2952	2.2680	2.2384

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TABLE II - Continued

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.80]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.5798	1.5586	1.5328	1.5044	1.4722	1.4360	1.3958	1.3510	1.3012	1.2454	1.1836	1.1140	1.0354	0.9454
.700	1.6558	1.6382	1.6174	1.5938	1.5670	1.5366	1.5026	1.4646	1.4228	1.3762	1.3246	1.2672	1.2038	1.1324
.600	1.7268	1.7128	1.6960	1.6764	1.6538	1.6282	1.5994	1.5676	1.5312	1.4924	1.4488	1.4006	1.3474	1.2884
.500	1.7930	1.7826	1.7690	1.7532	1.7344	1.7132	1.6890	1.6618	1.6314	1.5976	1.5602	1.5194	1.4740	1.4244
.400	1.8558	1.8480	1.8374	1.8248	1.8098	1.7920	1.7718	1.7486	1.7228	1.6940	1.6620	1.6268	1.5882	1.5452
.300	1.9150	1.9104	1.9020	1.8922	1.8802	1.8658	1.8490	1.8296	1.8076	1.7832	1.7556	1.7254	1.6920	1.6550
.250	1.9428	1.9394	1.9330	1.9246	1.9140	1.9010	1.8858	1.8680	1.8480	1.8254	1.7998	1.7716	1.7406	1.7062
.200	1.9706	1.9682	1.9630	1.9560	1.9466	1.9354	1.9216	1.9052	1.8870	1.8660	1.8424	1.8164	1.7874	1.7558
.150	1.9976	1.9962	1.9924	1.9866	1.9786	1.9684	1.9562	1.9416	1.9246	1.9056	1.8838	1.8594	1.8328	1.8030
.100	2.0240	2.0236	2.0208	2.0162	2.0098	2.0008	1.9898	1.9766	1.9612	1.9436	1.9238	1.9012	1.8764	1.8488
.075	2.0370	2.0372	2.0348	2.0310	2.0250	2.0166	2.0062	1.9938	1.9792	1.9622	1.9432	1.9216	1.8976	1.8710
.050	2.0496	2.0504	2.0488	2.0454	2.0398	2.0322	2.0226	2.0108	1.9968	1.9808	1.9624	1.9416	1.9186	1.8928
.025	2.0624	2.0636	2.0624	2.0596	2.0548	2.0476	2.0388	2.0276	2.0144	1.9990	1.9814	1.9612	1.9392	1.9144
0	2.0748	2.0764	2.0756	2.0734	2.0694	2.0630	2.0546	2.0440	2.0314	2.0166	2.0000	1.9808	1.9594	1.9354
-.025	2.0870	2.0894	2.0892	2.0874	2.0838	2.0780	2.0702	2.0604	2.0484	2.0344	2.0184	1.9998	1.9794	1.9564
-.050	2.0992	2.1022	2.1024	2.1010	2.0980	2.0928	2.0856	2.0764	2.0652	2.0520	2.0362	2.0186	1.9988	1.9768
-.075	2.1116	2.1146	2.1156	2.1146	2.1124	2.1076	2.1010	2.0922	2.0816	2.0690	2.0542	2.0372	2.0184	1.9968
-.100	2.1234	2.1272	2.1286	2.1282	2.1258	2.1220	2.1158	2.1080	2.0980	2.0858	2.0718	2.0556	2.0372	2.0164
-.150	2.1470	2.1516	2.1538	2.1546	2.1534	2.1506	2.1456	2.1388	2.1298	2.1190	2.1064	2.0914	2.0746	2.0556
-.200	2.1700	2.1756	2.1788	2.1806	2.1804	2.1782	2.1746	2.1688	2.1612	2.1516	2.1410	2.1264	2.1110	2.0934
-.250	2.1924	2.1988	2.2030	2.2058	2.2066	2.2054	2.2030	2.1982	2.1916	2.1832	2.1728	2.1606	2.1464	2.1302
-.300	2.2148	2.2220	2.2270	2.2304	2.2324	2.2322	2.2302	2.2268	2.2212	2.2140	2.2048	2.1936	2.1810	2.1662
-.400	2.2576	2.2666	2.2732	2.2784	2.2820	2.2836	2.2840	2.2820	2.2788	2.2738	2.2666	2.2576	2.2472	2.2348
-.500	2.2990	2.3094	2.3178	2.3246	2.3298	2.3332	2.3350	2.3352	2.3334	2.3312	2.3256	2.3188	2.3106	2.3004
-.600	2.3388	2.3508	2.3606	2.3688	2.3758	2.3808	2.3844	2.3862	2.3864	2.3848	2.3818	2.3774	2.3708	2.3628
-.700	2.3764	2.3908	2.4018	2.4120	2.4200	2.4266	2.4318	2.4354	2.4372	2.4374	2.4362	2.4336	2.4290	2.4228
-.800	2.4146	2.4294	2.4418	2.4532	2.4630	2.4710	2.4776	2.4824	2.4860	2.4878	2.4884	2.4868	2.4844	2.4804

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.8406	0.7154	0.5520	0.2994	------	------	------	------	------	------	------	------	------
.700	1.0518	.9600	.8532	.7256	0.5596	0.3034	------	------	------	------	------	------	------
.600	1.2228	1.1500	1.0678	.9742	.8652	.7358	0.5670	0.3074	------	------	------	------	------
.500	1.3694	1.3088	1.2420	1.1674	1.0836	.9882	.8774	.7458	0.5744	0.3114	------	------	------
.400	1.4984	1.4472	1.3908	1.3290	1.2602	1.1842	1.0986	1.0016	.8890	.7552	0.5816	0.3152	------
.300	1.6148	1.5706	1.5224	1.4698	1.4118	1.3482	1.2782	1.2006	1.1134	1.0146	.9004	.7646	0.5890
.250	1.6690	1.6276	1.5830	1.5340	1.4806	1.4220	1.3580	1.2872	1.2086	1.1210	1.0212	.9060	.7684
.200	1.7206	1.6824	1.6410	1.5952	1.5456	1.4912	1.4322	1.3674	1.2958	1.2164	1.1280	1.0278	.9114
.150	1.7704	1.7348	1.6960	1.6536	1.6072	1.5568	1.5022	1.4422	1.3768	1.3044	1.2244	1.1352	1.0340
.100	1.8184	1.7852	1.7488	1.7092	1.6660	1.6192	1.5682	1.5126	1.4522	1.3858	1.3128	1.2324	1.1422
.075	1.8416	1.8094	1.7744	1.7362	1.6944	1.6494	1.6000	1.5466	1.4880	1.4244	1.3546	1.2776	1.1922
.050	1.8646	1.8334	1.7996	1.7626	1.7222	1.6784	1.6310	1.5792	1.5230	1.4618	1.3948	1.3212	1.2398
.025	1.8870	1.8570	1.8242	1.7884	1.7494	1.7072	1.6612	1.6112	1.5570	1.4980	1.4338	1.3634	1.2858
0	1.9090	1.8800	1.8484	1.8138	1.7760	1.7352	1.6906	1.6424	1.5902	1.5334	1.4716	1.4038	1.3296
-.025	1.9308	1.9028	1.8724	1.8388	1.8022	1.7626	1.7194	1.6728	1.6226	1.5676	1.5082	1.4430	1.3720
-.050	1.9520	1.9250	1.8956	1.8630	1.8276	1.7894	1.7478	1.7028	1.6540	1.6012	1.5434	1.4812	1.4128
-.075	1.9732	1.9470	1.9186	1.8870	1.8528	1.8156	1.7756	1.7320	1.6848	1.6336	1.5780	1.5180	1.4522
-.100	1.9940	1.9686	1.9410	1.9106	1.8774	1.8424	1.8026	1.7604	1.7148	1.6654	1.6118	1.5538	1.4906
-.150	2.0344	2.0108	1.9850	1.9566	1.9254	1.8920	1.8554	1.8156	1.7728	1.7266	1.6766	1.6224	1.5638
-.200	2.0736	2.0516	2.0276	2.0010	1.9718	1.9404	1.9060	1.8688	1.8286	1.7852	1.7384	1.6876	1.6328
-.250	2.1118	2.0914	2.0690	2.0440	2.0166	1.9872	1.9548	1.9200	1.8822	1.8414	1.7974	1.7498	1.6986
-.300	2.1490	2.1300	2.1092	2.0860	2.0604	2.0324	2.0020	1.9690	1.9338	1.8952	1.8540	1.8094	1.7614
-.400	2.2204	2.2042	2.1864	2.1658	2.1432	2.1190	2.0920	2.0630	2.0318	1.9974	1.9610	1.9214	1.8786
-.500	2.2882	2.2744	2.2590	2.2414	2.2220	2.2004	2.1766	2.1514	2.1232	2.0928	2.0604	2.0252	1.9874
-.600	2.3532	2.3414	2.3288	2.3132	2.2962	2.2776	2.2568	2.2342	2.2094	2.1824	2.1536	2.1222	2.0884
-.700	2.4150	2.4056	2.3948	2.3818	2.3672	2.3510	2.3328	2.3124	2.2910	2.2670	2.2414	2.2134	2.1832
-.800	2.4744	2.4668	2.4582	2.4472	2.4348	2.4210	2.4050	2.3876	2.3684	2.3472	2.3244	2.2990	2.2724

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TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\boxed{M_0 = 0.85}$

P_1 / $\frac{\Delta H}{q_0}$	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.5594	1.5432	1.5238	1.5006	1.4734	1.4424	1.4070	1.3672	1.3220	1.2716	1.2144	1.1502	1.0774	0.9942
.700	1.6310	1.6138	1.6038	1.5854	1.5636	1.5382	1.5090	1.4760	1.4384	1.3964	1.3496	1.2970	1.2378	1.1716
.600	1.6976	1.6892	1.6780	1.6638	1.6464	1.6258	1.6018	1.5744	1.5434	1.5082	1.4688	1.4250	1.3758	1.3216
.500	1.7598	1.7546	1.7472	1.7368	1.7232	1.7066	1.6874	1.6646	1.6386	1.6090	1.5764	1.5394	1.4980	1.4524
.400	1.8186	1.8164	1.8120	1.8046	1.7946	1.7820	1.7664	1.7478	1.7264	1.7020	1.6742	1.6430	1.6082	1.5696
.300	1.8740	1.8748	1.8728	1.8686	1.8618	1.8524	1.8402	1.8256	1.8082	1.7878	1.7644	1.7382	1.7084	1.6754
.250	1.9006	1.9024	1.9022	1.8994	1.8938	1.8860	1.8756	1.8626	1.8466	1.8284	1.8070	1.7830	1.7558	1.7254
.200	1.9264	1.9296	1.9306	1.9288	1.9252	1.9186	1.9098	1.8984	1.8842	1.8676	1.8482	1.8260	1.8010	1.7730
.150	1.9508	1.9560	1.9582	1.9578	1.9552	1.9504	1.9428	1.9328	1.9204	1.9054	1.8880	1.8678	1.8448	1.8190
.100	1.9764	1.9820	1.9852	1.9862	1.9848	1.9812	1.9750	1.9666	1.9556	1.9424	1.9264	1.9082	1.8870	1.8634
.075	1.9884	1.9946	1.9984	2.0000	1.9990	1.9962	1.9908	1.9832	1.9728	1.9604	1.9454	1.9278	1.9076	1.8848
.050	1.9998	2.0072	2.0116	2.0136	2.0134	2.0110	2.0064	1.9992	1.9900	1.9780	1.9638	1.9472	1.9276	1.9060
.025	2.0124	2.0196	2.0244	2.0272	2.0274	2.0256	2.0216	2.0152	2.0066	1.9954	1.9820	1.9664	1.9478	1.9270
0	2.0240	2.0318	2.0372	2.0404	2.0414	2.0402	2.0369	2.0312	2.0230	2.0126	2.0000	1.9852	1.9674	1.9474
-.025	2.0356	2.0438	2.0498	2.0536	2.0550	2.0544	2.0518	2.0468	2.0392	2.0298	2.0178	2.0034	1.9868	1.9676
-.050	2.0470	2.0556	2.0622	2.0666	2.0688	2.0688	2.0666	2.0620	2.0554	2.0464	2.0352	2.0216	2.0056	1.9874
-.075	2.0582	2.0676	2.0744	2.0794	2.0822	2.0826	2.0810	2.0772	2.0712	2.0630	2.0524	2.0396	2.0224	2.0070
-.100	2.0694	2.0792	2.0866	2.0922	2.0952	2.0964	2.0954	2.0924	2.0870	2.0792	2.0700	2.0576	2.0430	2.0262
-.150	2.0912	2.1022	2.1106	2.1172	2.1214	2.1236	2.1236	2.1216	2.1176	2.1112	2.1028	2.0920	2.0792	2.0638
-.200	2.1130	2.1246	2.1340	2.1416	2.1466	2.1500	2.1514	2.1504	2.1474	2.1428	2.1352	2.1260	2.1144	2.1004
-.250	2.1342	2.1464	2.1572	2.1654	2.1716	2.1760	2.1782	2.1784	2.1764	2.1728	2.1668	2.1588	2.1486	2.1362
-.300	2.1546	2.1682	2.1794	2.1890	2.1960	2.2016	2.2046	2.2058	2.2050	2.2022	2.1976	2.1908	2.1820	2.1708
-.400	2.1948	2.2100	2.2230	2.2342	2.2432	2.2506	2.2554	2.2588	2.2602	2.2594	2.2568	2.2526	2.2460	2.2376
-.500	2.2334	2.2500	2.2648	2.2776	2.2886	2.2974	2.3044	2.3096	2.3128	2.3142	2.3146	2.3114	2.3072	2.3010
-.600	2.2708	2.2890	2.3052	2.3206	2.3320	2.3428	2.3514	2.3582	2.3634	2.3666	2.3682	2.3678	2.3658	2.3618
-.700	2.3070	2.3264	2.3442	2.3600	2.3748	2.3862	2.3966	2.4052	2.4120	2.4170	2.4204	2.4220	2.4216	2.4194
-.800	2.3416	2.3626	2.3816	2.3990	2.4144	2.4282	2.4402	2.4504	2.4586	2.4654	2.4704	2.4738	2.4750	2.4750

P_1 / $\frac{\Delta H}{q_0}$	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	0.8976	0.7828	0.6400	0.4426	------	------	------	------	------	------	------	------	------
.700	1.0966	1.0114	.9126	.7954	0.6500	0.4494	------	------	------	------	------	------	------
.600	1.2604	1.1924	1.1156	1.0284	.9274	.8080	0.6600	0.4558	------	------	------	------	------
.500	1.4016	1.3452	1.2826	1.2126	1.1338	1.0446	.9416	.8200	0.6694	0.4626	------	------	------
.400	1.5264	1.4790	1.4264	1.3682	1.3038	1.2320	1.1516	1.0604	.9554	.8318	0.6783	0.4688	------
.300	1.6388	1.5984	1.5538	1.5046	1.4504	1.3906	1.3246	1.2512	1.1688	1.0758	.9692	.8432	0.6878
.250	1.6914	1.6538	1.6126	1.5672	1.5172	1.4622	1.4016	1.3348	1.2604	1.1774	1.0836	.9758	.8488
.200	1.7416	1.7070	1.6686	1.6266	1.5804	1.5296	1.4738	1.4126	1.3446	1.2694	1.1858	1.0910	.9824
.150	1.7902	1.7578	1.7222	1.6832	1.6404	1.5936	1.5418	1.4854	1.4230	1.3548	1.2788	1.1940	1.0982
.100	1.8366	1.8066	1.7738	1.7374	1.6982	1.6540	1.6062	1.5540	1.4964	1.4338	1.3644	1.2874	1.2022
.075	1.8590	1.8306	1.7986	1.7636	1.7254	1.6832	1.6372	1.5868	1.5316	1.4712	1.4050	1.3316	1.2502
.050	1.8812	1.8538	1.8232	1.7896	1.7526	1.7120	1.6674	1.6190	1.5658	1.5076	1.4442	1.3740	1.2966
.025	1.9032	1.8766	1.8472	1.8146	1.7788	1.7398	1.6970	1.6500	1.5988	1.5432	1.4820	1.4150	1.3408
0	1.9244	1.8990	1.8706	1.8396	1.8050	1.7672	1.7258	1.6806	1.6312	1.5776	1.5188	1.4544	1.3834
-.025	1.9456	1.9212	1.8936	1.8636	1.8306	1.7942	1.7540	1.7106	1.6628	1.6110	1.5544	1.4926	1.4248
-.050	1.9662	1.9428	1.9166	1.8874	1.8556	1.8204	1.7816	1.7396	1.6936	1.6436	1.5892	1.5296	1.4644
-.075	1.9868	1.9640	1.9390	1.9108	1.8798	1.8460	1.8086	1.7682	1.7238	1.6754	1.6230	1.5656	1.5032
-.100	2.0070	1.9852	1.9608	1.9336	1.9040	1.8712	1.8350	1.7966	1.7530	1.7064	1.6558	1.6006	1.5404
-.150	2.0462	2.0262	2.0036	1.9786	1.9508	1.9204	1.8866	1.8500	1.8100	1.7666	1.7194	1.6678	1.6120
-.200	2.0842	2.0660	2.0452	2.0218	1.9960	1.9678	1.9364	1.9020	1.8646	1.8240	1.7798	1.7320	1.6798
-.250	2.1214	2.1046	2.0856	2.0638	2.0398	2.0134	1.9840	1.9522	1.9172	1.8792	1.8378	1.7930	1.7444
-.300	2.1576	2.1422	2.1244	2.1048	2.0824	2.0578	2.0304	2.0004	1.9676	1.9320	1.8934	1.8512	1.8058
-.400	2.2270	2.2140	2.1996	2.1826	2.1636	2.1424	2.1184	2.0924	2.0636	2.0324	1.9984	1.9614	1.9214
-.500	2.2930	2.2826	2.2704	2.2566	2.2402	2.2220	2.2014	2.1786	2.0536	2.1262	2.0962	2.0634	2.0282
-.600	2.3556	2.3478	2.3382	2.3264	2.3130	2.2976	2.2798	2.2600	2.2382	2.2140	2.1878	2.1590	2.1278
-.700	2.4168	2.4100	2.4023	2.3932	2.3822	2.3692	2.3542	2.2374	2.3182	2.2972	2.2740	2.2488	2.2210
-.800	2.4732	2.4698	2.4644	2.4590	2.4482	2.4376	2.4248	2.4106	2.3942	2.3760	2.3558	2.3334	2.3090

NATIONAL ADVISORY
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TABLE II - Continued

VALUES OF $2\left(\frac{\rho_1}{\rho_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_0 = 0.90\right]$

$\frac{\Delta H}{q_0}$ \ p_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.5354	1.5254	1.5120	1.4946	1.4732	1.4474	1.4176	1.3828	1.3428	1.2972	1.2454	1.1868	1.1198	1.0434
.700	1.6022	1.5966	1.5876	1.5748	1.5586	1.5386	1.5146	1.4864	1.4540	1.4170	1.3746	1.3268	1.2726	1.2118
.600	1.6644	1.6624	1.6576	1.6490	1.6372	1.6218	1.6030	1.5804	1.5542	1.5236	1.4890	1.4496	1.4050	1.3552
.500	1.7228	1.7242	1.7226	1.7178	1.7100	1.6990	1.6844	1.6666	1.6456	1.6206	1.5922	1.5594	1.5228	1.4812
.400	1.7778	1.7820	1.7834	1.7820	1.7780	1.7704	1.7600	1.7464	1.7298	1.7098	1.6864	1.6594	1.6288	1.5940
.300	1.8294	1.8366	1.8416	1.8426	1.8412	1.8376	1.8306	1.8208	1.8080	1.7920	1.7732	1.7512	1.7256	1.6968
.250	1.8542	1.8626	1.8684	1.8714	1.8716	1.8692	1.8640	1.8560	1.8452	1.8310	1.8142	1.7942	1.7712	1.7448
.200	1.8784	1.8882	1.8952	1.9004	1.9016	1.9002	1.8966	1.8902	1.8810	1.8688	1.8538	1.8358	1.8150	1.7908
.150	1.9020	1.9128	1.9212	1.9268	1.9300	1.9304	1.9282	1.9232	1.9156	1.9054	1.8922	1.8762	1.8572	1.8354
.100	1.9250	1.9372	1.9466	1.9534	1.9578	1.9594	1.9584	1.9556	1.9494	1.9408	1.9292	1.9152	1.8980	1.8782
.075	1.9362	1.9488	1.9590	1.9666	1.9718	1.9738	1.9738	1.9710	1.9658	1.9580	1.9474	1.9340	1.9180	1.8992
.050	1.9474	1.9606	1.9714	1.9796	1.9850	1.9880	1.9886	1.9868	1.9822	1.9750	1.9652	1.9528	1.9376	1.9198
.025	1.9584	1.9722	1.9836	1.9922	1.9984	2.0022	2.0032	2.0018	1.9982	1.9918	1.9828	1.9710	1.9568	1.9398
0	1.9694	1.9834	1.9952	2.0044	2.0116	2.0160	2.0176	2.0170	2.0142	2.0082	2.0002	1.9892	1.9758	1.9598
-.025	1.9802	1.9950	2.0074	2.0172	2.0244	2.0294	2.0320	2.0318	2.0294	2.0244	2.0172	2.0070	1.9946	1.9790
-.050	1.9906	2.0062	2.0190	2.0294	2.0374	2.0428	2.0460	2.0466	2.0446	2.0408	2.0340	2.0246	2.0128	1.9984
-.075	2.0012	2.0172	2.0306	2.0416	2.0502	2.0562	2.0600	2.0612	2.0600	2.0566	2.0504	2.0420	2.0310	2.0174
-.100	2.0116	2.0282	2.0418	2.0536	2.0626	2.0694	2.0736	2.0756	2.0750	2.0722	2.0668	2.0590	2.0488	2.0362
-.150	2.0322	2.0496	2.0646	2.0772	2.0874	2.0950	2.1006	2.1036	2.1042	2.1028	2.0990	2.0926	2.0838	2.0726
-.200	2.0522	2.0704	2.0866	2.1000	2.1114	2.1202	2.1268	2.1312	2.1330	2.1326	2.1300	2.1250	2.1180	2.1080
-.250	2.0720	2.0912	2.1080	2.1226	2.1350	2.1448	2.1524	2.1578	2.1610	2.1618	2.1604	2.1570	2.1510	2.1426
-.300	2.0912	2.1112	2.1290	2.1448	2.1576	2.1688	2.1776	2.1840	2.1882	2.1902	2.1902	2.1874	2.1832	2.1762
-.400	2.1284	2.1504	2.1710	2.1872	2.2024	2.2154	2.2252	2.2348	2.2410	2.2452	2.2474	2.3472	2.2448	2.2408
-.500	2.1644	2.1882	2.2092	2.2274	2.2448	2.2600	2.2726	2.2832	2.2914	2.2978	2.3020	2.3040	2.3042	2.3020
-.600	2.1990	2.2242	2.2472	2.2676	2.2866	2.3028	2.3172	2.3296	2.3400	2.3482	2.3540	2.3586	2.3606	2.3608
-.700	2.2326	2.2590	2.2838	2.3060	2.3262	2.3442	2.3604	2.3742	2.3864	2.3962	2.4044	2.4104	2.4148	2.4168
-.800	2.2750	2.2930	2.3188	2.3426	2.3644	2.3838	2.4014	2.4172	2.4310	2.4428	2.4526	2.4606	2.4668	2.4700

$\frac{\Delta H}{q_0}$ \ p_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	1.9546	0.8504	0.7232	0.5580	0.2982	------	------	------	------	------	------	------	------
.700	1.1424	1.0638	.9726	.8656	.7360	0.5676	0.3030	------	------	------	------	------	------
.600	1.2990	1.2358	1.1646	1.0832	.9898	.8806	.7482	0.5766	0.3078	------	------	------	------
.500	1.4346	1.3826	1.3244	1.2592	1.1856	1.1022	1.0068	.8952	.7598	0.5854	0.3124	------	------
.400	1.5552	1.5118	1.4630	1.4090	1.3490	1.2814	1.2062	1.1208	1.0232	.9094	.7714	0.5944	0.3168
.300	1.6638	1.6272	1.5864	1.5410	1.4904	1.4346	1.3726	1.3034	1.2262	1.1388	1.0392	.9230	.7828
.250	1.7148	1.6812	1.6434	1.6016	1.5552	1.5040	1.4472	1.3844	1.3142	1.3458	1.1476	1.0468	.9296
.200	1.7634	1.7326	1.6978	1.6596	1.6168	1.5692	1.5172	1.4594	1.3958	1.3248	1.2456	1.1562	1.0544
.150	1.8104	1.7818	1.7500	1.7146	1.6750	1.6314	1.5834	1.5304	1.4716	1.4068	1.3352	1.2550	1.1648
.100	1.8552	1.8294	1.8000	1.7672	1.7306	1.6906	1.6462	1.5972	1.5432	1.4832	1.4182	1.3456	1.2646
.075	1.8772	1.8522	1.8242	1.7926	1.7576	1.7190	1.6764	1.6292	1.5774	1.5202	1.4576	1.3882	1.3110
.050	1.8988	1.8750	1.8480	1.8178	1.7842	1.7470	1.7056	1.6602	1.6104	1.5556	1.4954	1.4290	1.3554
.025	1.9198	1.8972	1.8712	1.8424	1.8098	1.7740	1.7344	1.6908	1.6428	1.5900	1.5324	1.4688	1.3982
0	1.9406	1.9190	1.8942	1.8664	1.8354	1.8008	1.7626	1.7206	1.6744	1.6238	1.5682	1.5072	1.4398
-.025	1.9612	1.9404	1.9166	1.8900	1.8602	1.8270	1.7900	1.7496	1.7052	1.6564	1.6030	1.5444	1.4800
-.050	1.9814	1.9616	1.9388	1.9132	1.8844	1.8522	1.8172	1.7784	1.7352	1.6882	1.6370	1.5804	1.5186
-.075	2.0010	1.9822	1.9606	1.9362	1.9082	1.8774	1.8436	1.8060	1.7648	1.7194	1.6698	1.6156	1.5562
-.100	2.0206	2.0026	1.9820	1.9584	1.9318	1.9022	1.8694	1.8334	1.7934	1.7498	1.7022	1.6500	1.5928
-.150	2.0588	2.0424	2.0236	2.0020	1.9776	1.9502	1.9196	1.8862	1.8492	1.8086	1.7642	1.7158	1.6626
-.200	2.0958	2.0812	2.0640	2.0442	2.0216	1.9964	1.9682	1.9370	1.9026	1.8648	1.8236	1.7784	1.6390
-.250	2.1318	2.1186	2.1032	2.0950	2.0642	2.0410	2.0150	1.9862	1.9540	1.9186	1.8804	1.8380	1.7922
-.300	2.1668	2.1552	2.1412	2.1246	2.1058	2.0842	2.0600	2.0334	2.0034	1.9706	1.9350	1.8958	1.8528
-.400	2.2340	2.2254	2.2142	2.2008	2.1848	2.1668	2.1464	2.1234	2.0976	2.0690	2.0380	2.0036	1.9660
-.500	2.2980	2.2918	2.2834	2.2730	2.2598	2.2450	2.2274	2.2078	2.1958	2.1612	2.1340	2.1042	2.0712
-.600	2.3588	2.3552	2.3492	2.3412	2.3310	2.3186	2.3042	2.2878	2.2688	2.2476	2.2240	2.1978	2.1692
-.700	2.4172	2.4156	2.4122	2.4064	2.3986	2.3888	2.3770	2.3634	2.3474	2.3292	2.3088	2.2862	2.2612
-.800	2.4730	2.4734	2.4716	2.4686	2.4632	2.4556	2.4464	2.4354	2.4218	2.4064	2.3892	2.3696	2.3480

TABLE II - Continued

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.95\right]$

$\frac{\Delta H}{q_o}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.5074	1.5048	1.4976	1.4866	1.4710	1.4514	1.4270	1.3976	1.3632	1.3232	1.2768	1.2238	1.1630	1.0930
.700	1.5696	1.5710	1.5684	1.5620	1.5518	1.5374	1.5192	1.4962	1.4690	1.4370	1.3998	1.3572	1.3082	1.2528
.600	1.6276	1.6326	1.6340	1.6318	1.6262	1.6164	1.6032	1.5858	1.5648	1.5392	1.5094	1.4748	1.4350	1.3898
.500	1.6818	1.6902	1.6950	1.6966	1.6946	1.6894	1.6806	1.6680	1.6520	1.6322	1.6082	1.5802	1.5478	1.5110
.400	1.7328	1.7442	1.7524	1.7572	1.7588	1.7572	1.7524	1.7444	1.7326	1.7174	1.6988	1.6764	1.6498	1.6196
.300	1.7808	1.7950	1.8060	1.8142	1.8190	1.8208	1.8194	1.8152	1.8072	1.7962	1.7820	1.7646	1.7432	1.7186
.250	1.8038	1.8194	1.8320	1.8414	1.8476	1.8510	1.8514	1.8486	1.8428	1.8336	1.8214	1.8060	1.7872	1.7650
.200	1.8262	1.8432	1.8570	1.8680	1.8754	1.8804	1.8822	1.8810	1.8770	1.8698	1.8596	1.8462	1.8294	1.8096
.150	1.8482	1.8662	1.8812	1.8936	1.9026	1.9090	1.9124	1.9128	1.9104	1.9048	1.8962	1.8848	1.8698	1.8526
.100	1.8694	1.8886	1.9052	1.9186	1.9292	1.9368	1.9414	1.9434	1.9424	1.9388	1.9320	1.9224	1.9096	1.8940
.075	1.8800	1.8996	1.9168	1.9308	1.9420	1.9504	1.9558	1.9584	1.9580	1.9554	1.9494	1.9406	1.9290	1.9142
.050	1.8902	1.9106	1.9282	1.9430	1.9548	1.9638	1.9698	1.9732	1.9736	1.9716	1.9666	1.9586	1.9478	1.9340
.025	1.9004	1.9214	1.9396	1.9548	1.9674	1.9768	1.9838	1.9878	1.9892	1.9876	1.9834	1.9762	1.9664	1.9532
0	1.9104	1.9322	1.9508	1.9668	1.9798	1.9900	1.9976	2.0024	2.0044	2.0034	2.0002	1.9938	1.9848	1.9728
-.025	1.9206	1.9426	1.9620	1.9784	1.9918	2.0028	2.0110	2.0164	2.0192	2.0192	2.0164	2.0110	2.0028	1.9916
-.050	1.9304	1.9530	1.9730	1.9900	2.0040	2.0156	2.0244	2.0306	2.0338	2.0346	2.0326	2.0280	2.0204	2.0102
-.075	1.9402	1.9634	1.9838	2.0014	2.0162	2.0282	2.0376	2.0444	2.0484	2.0498	2.0484	2.0446	2.0378	2.0286
-.100	1.9498	1.9736	1.9944	2.0126	2.0280	2.0406	2.0506	2.0582	2.0626	2.0648	2.0640	2.0612	2.0552	2.0466
-.150	1.9686	1.9938	2.0154	2.0348	2.0512	2.0650	2.0762	2.0848	2.0908	2.0942	2.0950	2.0934	2.0890	2.0820
-.200	1.9876	2.0130	2.0360	2.0564	2.0738	2.0888	2.1012	2.1110	2.1182	2.1228	2.1250	2.1246	2.1214	2.1164
-.250	2.0056	2.0324	2.0562	2.0776	2.0960	2.1122	2.1256	2.1366	2.1448	2.1508	2.1542	2.1550	2.1536	2.1496
-.300	2.0234	2.0510	2.0768	2.0982	2.1178	2.1348	2.1494	2.1614	2.1710	2.1780	2.1826	2.1850	2.1846	2.1818
-.400	2.0580	2.0862	2.1144	2.1384	2.1598	2.1788	2.1956	2.2096	2.2214	2.2306	2.2374	2.2424	2.2446	2.2444
-.500	2.0916	2.1226	2.1510	2.1768	2.2004	2.2212	2.2398	2.2558	2.2696	2.2810	2.2902	2.2972	2.3018	2.3040
-.600	2.1236	2.1564	2.1864	2.2140	2.2392	2.2618	2.2822	2.3000	2.3158	2.3294	2.3406	2.3496	2.3572	2.3608
-.700	2.1546	2.1890	2.2204	2.2498	2.2764	2.3010	2.3228	2.3428	2.3602	2.3754	2.3888	2.3998	2.4082	2.4152
-.800	2.1846	2.2204	2.2536	2.2844	2.3124	2.3386	2.3624	2.3838	2.4030	2.4198	2.4350	2.4480	2.4586	2.4672

$\frac{\Delta H}{q_o}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	1.0120	0.9172	0.8034	0.6614	0.4654	------	------	------	------	------	------	------	------
.700	1.1892	1.1168	1.0330	.9354	.8192	0.6738	0.4736	------	------	------	------	------	------
.600	1.3384	1.2804	1.2146	1.1396	1.0534	.9532	.8338	0.6854	0.4816	------	------	------	------
.500	1.4686	1.4212	1.3676	1.3072	1.2392	1.1616	1.0726	.9704	.8486	0.6970	0.4894	------	------
.400	1.5850	1.5456	1.5012	1.4512	1.3958	1.3330	1.2628	1.1832	1.0922	.9874	.8626	0.7080	0.4970
.300	1.6898	1.6574	1.6204	1.5788	1.5324	1.4806	1.4228	1.3580	1.2856	1.2040	1.1108	1.0034	.8764
.250	1.7392	1.7092	1.6756	1.6374	1.5952	1.5476	1.4948	1.4358	1.3702	1.2966	1.2140	1.1198	1.0112
.200	1.7860	1.7592	1.7284	1.6936	1.6548	1.6110	1.5628	1.5088	1.4488	1.3822	1.3080	1.2238	1.1288
.150	1.8316	1.8076	1.7788	1.7470	1.7114	1.6714	1.6270	1.5774	1.5224	1.4618	1.3940	1.3184	1.2336
.100	1.8752	1.8530	1.8274	1.7984	1.7656	1.7286	1.6878	1.6424	1.5918	1.5362	1.4744	1.4058	1.3292
.075	1.8962	1.8754	1.8508	1.8230	1.7918	1.7564	1.7172	1.6734	1.6250	1.5716	1.5126	1.4468	1.3740
.050	1.9172	1.8972	1.8740	1.8474	1.8176	1.7836	1.7460	1.7040	1.6576	1.6062	1.5496	1.4866	1.4172
.025	1.9376	1.9188	1.8966	1.8712	1.8424	1.8100	1.7738	1.7338	1.6890	1.6398	1.5856	1.5252	1.4586
0	1.9578	1.9398	1.9188	1.8948	1.8672	1.8360	1.8014	1.7628	1.7198	1.6724	1.6202	1.5626	1.4988
-.025	1.9772	1.9608	1.9408	1.9176	1.8914	1.8614	1.8282	1.7910	1.7500	1.7044	1.6542	1.5990	1.5380
-.050	1.9970	1.9814	1.9622	1.9402	1.9150	1.8864	1.8546	1.8188	1.7794	1.7354	1.6872	1.6340	1.5754
-.075	2.0162	2.0014	1.9832	1.9622	1.9384	1.9108	1.8802	1.8462	1.8078	1.7658	1.7194	1.6684	1.6122
-.100	2.0352	2.0212	2.0040	1.9840	1.9612	1.9348	1.9056	1.8726	1.8358	1.7956	1.7508	1.7016	1.6476
-.150	2.0722	2.0598	2.0444	2.0264	2.0056	1.9814	1.9546	1.9242	1.8904	1.8528	1.8114	1.7660	1.7158
-.200	2.1080	2.0974	2.0838	2.0676	2.0488	2.0268	2.0020	1.9740	1.9426	1.9078	1.8696	1.8272	1.7806
-.250	2.1430	2.1338	2.1218	2.1074	2.0904	2.0702	2.0476	2.0216	1.9928	1.9606	1.9252	1.8858	1.8424
-.300	2.1770	2.1694	2.1588	2.1460	2.1310	2.1126	2.0920	2.0682	2.0416	2.0118	1.9786	1.9422	1.9020
-.400	2.2418	2.2374	2.2300	2.2202	2.2082	2.1932	2.1762	2.1562	2.1336	2.1080	2.0798	2.0480	2.0132
-.500	2.3040	2.3020	2.2972	2.2904	2.2812	2.2694	2.2554	2.2390	2.2198	2.1984	2.1738	2.1468	2.1166
-.600	2.3630	2.3632	2.3612	2.3570	2.3506	2.3416	2.3308	2.3174	2.3016	2.2832	2.2626	2.2392	2.2130
-.700	2.4196	2.4220	2.4222	2.4202	2.4166	2.4100	2.4018	2.3912	2.3784	2.3632	2.3460	2.3260	2.3036
-.800	2.4736	2.4784	2.4806	2.4810	2.4794	2.4756	2.4698	2.4620	2.4516	2.4394	2.4250	2.4080	2.3886

TABLE II - Concluded

VALUES OF $2\left(\frac{p_1}{p_2}\right)^{1/2}\left(\frac{q_1}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Concluded

$\left[M_0 = 1.00\right]$

$\frac{\Delta H}{q_0}$ \ P_1	-0.50	-0.45	-0.40	-0.35	-0.30	-0.25	-0.20	-0.15	-0.10	-0.05	0	0.05	0.10	0.15
0.800	1.4754	1.4802	1.4802	1.4762	1.4672	1.4536	1.4354	1.4118	1.3830	1.3488	1.3082	1.2610	1.2062	1.1430
.700	1.5330	1.5418	1.5464	1.5468	1.5432	1.5350	1.5224	1.5054	1.4836	1.4572	1.4254	1.3880	1.3446	1.2944
.600	1.5862	1.5992	1.6078	1.6122	1.6128	1.6096	1.6022	1.5904	1.5746	1.5544	1.5296	1.5002	1.4656	1.4254
.500	1.6364	1.6524	1.6646	1.6708	1.6778	1.6784	1.6756	1.6686	1.6578	1.6432	1.6244	1.6012	1.5736	1.5412
.400	1.6836	1.7024	1.7180	1.7298	1.7380	1.7426	1.7434	1.7406	1.7348	1.7248	1.7104	1.6934	1.6718	1.6456
.300	1.7278	1.7498	1.7684	1.7830	1.7946	1.8026	1.8070	1.8082	1.8058	1.8002	1.7908	1.7782	1.7616	1.7412
.250	1.7490	1.7724	1.7924	1.8088	1.8216	1.8312	1.8374	1.8402	1.8398	1.8360	1.8288	1.8180	1.8038	1.7858
.200	1.7698	1.7944	1.8156	1.8336	1.8480	1.8586	1.8668	1.8712	1.8724	1.8704	1.8652	1.8568	1.8446	1.8288
.150	1.7898	1.8160	1.8382	1.8576	1.8736	1.8860	1.8954	1.9016	1.9042	1.9040	1.9006	1.8938	1.8848	1.8704
.100	1.8096	1.8368	1.8602	1.8810	1.8984	1.9122	1.9230	1.9304	1.9352	1.9364	1.9346	1.9300	1.9218	1.9104
.075	1.8192	1.8472	1.8714	1.8924	1.9104	1.9252	1.9366	1.9448	1.9500	1.9522	1.9514	1.9482	1.9404	1.9298
.050	1.8288	1.8572	1.8820	1.9038	1.9224	1.9376	1.9500	1.9588	1.9650	1.9680	1.9678	1.9648	1.9586	1.9490
.025	1.8384	1.8674	1.8928	1.9150	1.9342	1.9502	1.9632	1.9728	1.9796	1.9832	1.9840	1.9918	1.9764	1.9680
0	1.8476	1.8772	1.9036	1.9262	1.9460	1.9624	1.9760	1.9866	1.9940	1.9986	2.0000	1.9984	1.9940	1.9806
-.025	1.8574	1.8870	1.9138	1.9372	1.9576	1.9758	1.9886	2.0002	2.0082	2.0136	2.0156	2.0150	2.0118	2.0050
-.050	1.8660	1.8966	1.9240	1.9480	1.9688	1.9868	2.0016	2.0134	2.0224	2.0282	2.0312	2.0312	2.0286	2.0228
-.075	1.8748	1.9062	1.9342	1.9586	1.9802	1.9988	2.0142	2.0268	2.0362	2.0428	2.0466	2.0474	2.0454	2.0404
-.100	1.8838	1.9156	1.9440	1.9692	1.9914	2.0104	2.0264	2.0396	2.0500	2.0574	2.0616	2.0632	2.0620	2.0578
-.150	1.9014	1.9342	1.9634	1.9900	2.0130	2.0334	2.0508	2.0652	2.0766	2.0854	2.0912	2.0944	2.0946	2.0918
-.200	1.9186	1.9522	1.9830	2.0102	2.0346	2.0558	2.0744	2.0902	2.1030	2.1130	2.1200	2.1246	2.1260	2.1250
-.250	1.9354	1.9702	2.0026	2.0300	2.0556	2.0778	2.0976	2.1144	2.1286	2.1396	2.1482	2.1540	2.1570	2.1572
-.300	1.9518	1.9876	2.0200	2.0492	2.0762	2.0996	2.1204	2.1380	2.1534	2.1656	2.1754	2.1826	2.1872	2.1888
-.400	1.9836	2.0214	2.0558	2.0872	2.1156	2.1412	2.1638	2.1840	2.2014	2.2160	2.2286	2.2378	2.2448	2.2490
-.500	2.0144	2.0538	2.0900	2.1232	2.1536	2.1834	2.2058	2.2278	2.2474	2.2642	2.2786	2.2906	2.2998	2.3068
-.600	2.0440	2.0840	2.1232	2.1578	2.1902	2.2194	2.2460	2.2700	2.2914	2.3104	2.3268	2.3408	2.3524	2.3614
-.700	2.0726	2.1154	2.1546	2.1916	2.2252	2.2564	2.2834	2.3106	2.3338	2.3546	2.3730	2.3892	2.4026	2.4142
-.800	2.1002	2.1444	2.1854	2.2240	2.2592	2.2916	2.3220	2.3482	2.3748	2.3974	2.4176	2.4356	2.4512	2.4644

$\frac{\Delta H}{q_0}$ \ P_1	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80
0.800	1.0694	0.9836	0.8816	0.7572	0.5960	0.3526	------	------	------	------	------	------	------
.700	1.2368	1.1706	1.0942	1.0054	.9004	.7726	0.6080	0.3592	------	------	------	------	------
.600	1.3790	1.3262	1.2658	1.1968	1.1180	1.0264	.9186	.7876	0.6190	0.3656	------	------	------
.500	1.5040	1.4610	1.4120	1.3570	1.2940	1.2224	1.1408	1.0464	.9358	.8020	0.6302	0.3718	------
.400	1.6154	1.5806	1.5408	1.4954	1.4440	1.3864	1.3210	1.2470	1.1628	1.0662	.9530	.8160	0.6406
.300	1.7166	1.6886	1.6556	1.6184	1.5760	1.5284	1.4746	1.4144	1.3470	1.2708	1.1844	1.0850	.9690
.250	1.7642	1.7388	1.7090	1.6750	1.6366	1.5932	1.5444	1.4894	1.4286	1.3596	1.2824	1.1946	1.0942
.200	1.8098	1.7868	1.7602	1.7294	1.6942	1.6548	1.6102	1.5600	1.5042	1.4420	1.3724	1.2938	1.2050
.150	1.8536	1.8332	1.8090	1.7810	1.7492	1.7130	1.6720	1.6266	1.5756	1.5188	1.4554	1.3844	1.3142
.100	1.8956	1.8778	1.8558	1.8308	1.8018	1.7688	1.7316	1.6896	1.6430	1.5908	1.5330	1.4686	1.3966
.075	1.9162	1.8994	1.8788	1.8548	1.8270	1.7956	1.7598	1.7198	1.6752	1.6254	1.5700	1.5084	1.4398
.050	1.9364	1.9206	1.9010	1.8786	1.8520	1.8218	1.7878	1.7494	1.7066	1.6590	1.6056	1.5470	1.4816
.025	1.9562	1.9414	1.9230	1.9018	1.8764	1.8476	1.8152	1.7784	1.7372	1.6916	1.6408	1.5842	1.5218
0	1.9758	1.9620	1.9448	1.9244	1.9004	1.8730	1.8418	1.8068	1.7672	1.7234	1.6746	1.6204	1.5608
-.025	1.9948	1.9820	1.9658	1.9468	1.9240	1.8978	1.8680	1.8344	1.7964	1.7546	1.7076	1.6558	1.5986
-.050	2.0138	2.0018	1.9868	1.9686	1.9470	1.9222	1.8936	1.8614	1.8252	1.7846	1.7398	1.6900	1.6350
-.075	2.0322	2.0214	2.0076	1.9902	1.9698	1.9458	1.9188	1.8878	1.8534	1.8144	1.7710	1.7242	1.6708
-.100	2.0508	2.0404	2.0276	2.0112	1.9920	1.9694	1.9432	1.9136	1.8806	1.8430	1.8016	1.7560	1.7054
-.150	2.0866	2.0784	2.0668	2.0530	2.0352	2.0148	1.9912	1.9640	1.9338	1.8994	1.8012	1.8188	1.7720
-.200	2.1214	2.1148	2.1050	2.0928	2.0772	2.0588	2.0374	2.0128	1.9848	1.9532	1.9180	1.8788	1.8352
-.250	2.1550	2.1500	2.1420	2.1314	2.1178	2.1012	2.0822	2.0594	2.0338	2.0048	1.9724	1.9360	1.8960
-.300	2.1878	2.1844	2.1780	2.1690	2.1574	2.1426	2.1252	2.1048	2.0814	2.0548	2.0246	1.9910	1.9542
-.400	2.2508	2.2502	2.2472	2.2408	2.2326	2.2214	2.2074	2.1908	2.1716	2.1492	2.1236	2.0952	2.0634
-.500	2.3112	2.3130	2.3122	2.3092	2.3038	2.2958	2.2852	2.2718	2.2562	2.2376	2.2160	2.1920	2.1646
-.600	2.3682	2.3726	2.3746	2.3744	2.3712	2.3664	2.3586	2.3486	2.3360	2.3208	2.3024	2.2826	2.2592
-.700	2.4230	2.4298	2.4338	2.4362	2.4358	2.4330	2.4286	2.4212	2.4116	2.3996	2.3848	2.3680	2.3484
-.800	2.4752	2.4842	2.4906	2.4952	2.4972	2.4972	2.4946	2.4904	2.4836	2.4744	2.4626	2.4486	2.4324

NATIONAL ADVISORY
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TABLE III

VALUES OF $\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT

FOR FLOWS WHEREIN ENERGY IS ADDED

$[M_o = 0]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.5528	0.5478	0.5430	0.5381	0.5287	0.5063	0.4853	0.4657	0.4472	0.4298	0.4134	0.3980
.700	.4523	.4473	.4425	.4376	.4282	.4058	.3848	.3652	.3467	.3293	.3129	.2975
.600	.3675	.3625	.3577	.3528	.3434	.3210	.3000	.2804	.2619	.2445	.2281	.2127
.500	.2929	.2879	.2831	.2782	.2688	.2464	.2254	.2058	.1873	.1699	.1535	.1381
.400	.2254	.2204	.2156	.2107	.2013	.1789	.1579	.1383	.1198	.1024	.0860	.0706
.300	.1633	.1583	.1535	.1486	.1392	.1168	.0958	.0762	.0577	.0403	.0239	.0085
.250	.1340	.1290	.1242	.1193	.1099	.0875	.0665	.0469	.0284	.0110	-.0054	-.0208
.200	.1056	.1006	.0958	.0909	.0815	.0591	.0381	.0185	0	-.0174	-.0338	-.0492
.150	.0780	.0730	.0682	.0633	.0539	.0315	.0105	-.0091	-.0276	-.0450	-.0614	-.0768
.100	.0513	.0463	.0415	.0366	.0272	.0048	-.0162	-.0358	-.0543	-.0717	-.0881	-.1035
.075	.0382	.0332	.0284	.0235	.0141	-.0083	-.0293	-.0489	-.0674	-.0848	-.1012	-.1166
.050	.0253	.0203	.0155	.0106	.0012	-.0212	-.0422	-.0618	-.0803	-.0977	-.1141	-.1295
.025	.0126	.0076	.0028	-.0021	-.0115	-.0339	-.0549	-.0745	-.0930	-.1104	-.1268	-.1422
0	0	-.0050	-.0098	-.0147	-.0241	-.0465	-.0675	-.0871	-.1056	-.1230	-.1394	-.1548
-.025	-.0124	-.0174	-.0222	-.0271	-.0365	-.0589	-.0799	-.0995	-.1180	-.1354	-.1518	-.1672
-.050	-.0247	-.0297	-.0345	-.0394	-.0488	-.0712	-.0922	-.1118	-.1303	-.1477	-.1641	-.1795
-.075	-.0368	-.0418	-.0466	-.0515	-.0609	-.0833	-.1043	-.1239	-.1424	-.1598	-.1762	-.1916
-.100	-.0488	-.0538	-.0586	-.0635	-.0729	-.0953	-.1163	-.1359	-.1544	-.1718	-.1882	-.2036
-.150	-.0723	-.0773	-.0821	-.0870	-.0964	-.1188	-.1398	-.1594	-.1779	-.1953	-.2117	-.2271
-.200	-.0954	-.1004	-.1052	-.1101	-.1195	-.1419	-.1629	-.1825	-.2010	-.2184	-.2348	-.2502
-.250	-.1180	-.1230	-.1278	-.1327	-.1421	-.1645	-.1855	-.2051	-.2236	-.2410	-.2574	-.2728
-.300	-.1402	-.1452	-.1500	-.1549	-.1643	-.1867	-.2077	-.2273	-.2458	-.2632	-.2796	-.2950
-.400	-.1832	-.1882	-.1930	-.1979	-.2073	-.2297	-.2507	-.2703	-.2888	-.3062	-.3226	-.3380
-.500	-.2247	-.2297	-.2345	-.2394	-.2488	-.2712	-.2922	-.3118	-.3303	-.3477	-.3641	-.3795
-.600	-.2649	-.2699	-.2747	-.2796	-.2890	-.3114	-.3324	-.3520	-.3705	-.3879	-.4043	-.4197
-.700	-.3038	-.3088	-.3136	-.3185	-.3279	-.3503	-.3713	-.3909	-.4094	-.4268	-.4432	-.4586
-.800	-.3416	-.3466	-.3514	-.3563	-.3657	-.3881	-.4091	-.4287	-.4472	-.4646	-.4810	-.4964

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.05\right]$

K $\frac{\Delta H}{q_o}$	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.5519	0.5469	0.5420	0.5372	0.5278	0.5054	0.4845	0.4648	0.4464	0.4290	0.4126	0.3971
.700	.4515	.4466	.4417	.4369	.4275	.4051	.3841	.3644	.3460	.3287	.3123	.2968
.600	.3669	.3620	.3571	.3523	.3429	.3205	.2995	.2798	.2614	.2441	.2277	.2122
.500	.2922	.2872	.2824	.2775	.2681	.2457	.2247	.2051	.1867	.1693	.1529	.1374
.400	.2250	.2200	.2152	.2103	.2009	.1785	.1575	.1379	.1195	.1021	.0857	.0702
.300	.1632	.1582	.1533	.1485	.1391	.1166	.0957	.0761	.0576	.0402	.0239	.0084
.250	.1338	.1289	.1240	.1192	.1098	.0873	.0664	.0468	.0283	.0109	-.0054	-.0209
.200	.1055	.1005	.0956	.0908	.0814	.0589	.0380	.0184	-.0001	-.0175	-.0338	-.0493
.150	.0778	.0729	.0680	.0632	.0538	.0313	.0104	-.0092	-.0277	-.0451	-.0614	-.0769
.100	.0513	.0463	.0415	.0366	.0272	.0048	-.0162	-.0358	-.0542	-.0716	-.0880	-.1035
.075	.0382	.0332	.0284	.0235	.0141	-.0083	-.0293	-.0489	-.0673	-.0847	-.1011	-.1166
.050	.0253	.0203	.0155	.0106	.0012	-.0212	-.0422	-.0618	-.0802	-.0976	-.1140	-.1295
.025	.0126	.0076	.0028	-.0021	-.0115	-.0339	-.0549	-.0745	-.0929	-.1103	-.1267	-.1422
0	0	-.0050	-.0098	-.0147	-.0241	-.0465	-.0675	-.0871	-.1055	-.1229	-.1393	-.1548
-.025	-.0124	-.0174	-.0222	-.0271	-.0365	-.0589	-.0799	-.0995	-.1179	-.1353	-.1517	-.1672
-.050	-.0247	-.0296	-.0344	-.0363	-.0487	-.0711	-.0921	-.1117	-.1301	-.1475	-.1639	-.1794
-.075	-.0368	-.0418	-.0466	-.0515	-.0609	-.0833	-.1043	-.1239	-.1423	-.1597	-.1761	-.1916
-.100	-.0488	-.0538	-.0586	-.0635	-.0729	-.0953	-.1163	-.1359	-.1543	-.1717	-.1881	-.2036
-.150	-.0724	-.0772	-.0821	-.0869	-.0963	-.1188	-.1397	-.1593	-.1778	-.1951	-.2115	-.2270
-.200	-.0953	-.1003	-.1052	-.1100	-.1194	-.1419	-.1628	-.1824	-.2009	-.2182	-.2346	-.2501
-.250	-.1180	-.1228	-.1277	-.1325	-.1419	-.1644	-.1853	-.2049	-.2234	-.2407	-.2571	-.2726
-.300	-.1398	-.1448	-.1497	-.1545	-.1639	-.1864	-.2073	-.2269	-.2454	-.2627	-.2791	-.2946
-.400	-.1828	-.1878	-.1926	-.1975	-.2069	-.2293	-.2503	-.2699	-.2884	-.3057	-.3221	-.3376
-.500	-.2243	-.2293	-.2341	-.2390	-.2484	-.2708	-.2918	-.3114	-.3299	-.3472	-.3636	-.3791
-.600	-.2644	-.2693	-.2742	-.2790	-.2884	-.3109	-.3318	-.3515	-.3699	-.3873	-.4036	-.4192
-.700	-.3033	-.3082	-.3131	-.3179	-.3273	-.3498	-.3707	-.3904	-.4088	-.4262	-.4425	-.4581
-.800	-.3409	-.3459	-.3507	-.3556	-.3650	-.3874	-.4084	-.4280	-.4464	-.4638	-.4802	-.4957

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.10\right]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.5493	0.5443	0.5395	0.5347	0.5253	0.5029	0.4820	0.4624	0.4440	0.4266	0.4103	0.3948
.700	.4495	.4445	.4397	.4349	.4254	.4031	.3822	.3626	.3442	.3268	.3105	.2950
.600	.3653	.3603	.3555	.3507	.3412	.3189	.2979	.2784	.2600	.2427	.2262	.2108
.500	.2911	.2861	.2812	.2765	.2671	.2446	.2237	.2042	.1857	.1684	.1521	.1366
.400	.2240	.2190	.2141	.2094	.2000	.1776	.1567	.1370	.1187	.1013	.0849	.0694
.300	.1623	.1573	.1524	.1476	.1383	.1159	.0950	.0753	.0569	.0396	.0232	.0078
.250	.1330	.1281	.1232	.1184	.1090	.0866	.0657	.0461	.0277	.0103	-.0060	-.0215
.200	.1049	.0999	.0950	.0902	.0809	.0585	.0375	.0180	-.0005	-.0178	-.0342	-.0497
.150	.0775	.0726	.0677	.0629	.0535	.0311	.0102	-.0094	-.0278	-.0451	-.0615	-.0770
.100	.0510	.0460	.0412	.0363	.0270	.0046	-.0164	-.0360	-.0544	-.0717	-.0881	-.1036
.075	.0380	.0330	.0281	.0233	.0139	-.0085	-.0294	-.0490	-.0675	-.0848	-.1011	-.1167
.050	.0252	.0202	.0153	.0105	.0011	-.0213	-.0422	-.0618	-.0803	-.0976	-.1139	-.1295
.025	.0125	.0075	.0027	-.0022	-.0115	-.0339	-.0549	-.0745	-.0929	-.1102	-.1266	-.1421
0	0	-.0050	-.0098	-.0147	-.0240	-.0464	-.0674	-.0870	-.1054	-.1227	-.1391	-.1546
-.025	-.0123	-.0173	-.0221	-.0270	-.0363	-.0587	-.0797	-.0993	-.1177	-.1350	-.1514	-.1669
-.050	-.0246	-.0295	-.0344	-.0392	-.0486	-.0710	-.0919	-.1115	-.1299	-.1473	-.1637	-.1791
-.075	-.0366	-.0415	-.0464	-.0512	-.0606	-.0830	-.1039	-.1235	-.1419	-.1593	-.1757	-.1911
-.100	-.0485	-.0535	-.0583	-.0632	-.0725	-.0950	-.1159	-.1355	-.1539	-.1713	-.1876	-.2031
-.150	-.0719	-.0768	-.0817	-.0865	-.0959	-.1183	-.1392	-.1588	-.1772	-.1946	-.2110	-.2265
-.200	-.0947	-.0997	-.1045	-.1094	-.1187	-.1412	-.1621	-.1817	-.2001	-.2175	-.2339	-.2493
-.250	-.1172	-.1221	-.1270	-.1318	-.1412	-.1636	-.1846	-.2042	-.2226	-.2399	-.2563	-.2718
-.300	-.1391	-.1441	-.1489	-.1538	-.1632	-.1856	-.2065	-.2261	-.2445	-.2619	-.2782	-.2938
-.400	-.1818	-.1868	-.1916	-.1965	-.2059	-.2283	-.2492	-.2688	-.2872	-.3046	-.3210	-.3364
-.500	-.2230	-.2280	-.2328	-.2377	-.2471	-.2695	-.2904	-.3100	-.3285	-.3458	-.3622	-.3777
-.600	-.2628	-.2678	-.2726	-.2774	-.2869	-.3093	-.3302	-.3498	-.3682	-.3856	-.4020	-.4175
-.700	-.3014	-.3064	-.3112	-.3160	-.3255	-.3479	-.3688	-.3884	-.4069	-.4242	-.4406	-.4561
-.800	-.3388	-.3438	-.3486	-.3534	-.3629	-.3853	-.4062	-.4259	-.4443	-.4616	-.4780	-.4936

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.15]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.5450	0.5401	0.5352	0.5304	0.5211	0.4987	0.4779	0.4584	0.4400	0.4228	0.4064	0.3910
.700	.4460	.4411	.4362	.4315	.4221	.3998	.3789	.3594	.3410	.3237	.3074	.2920
.600	.3624	.3575	.3526	.3479	.3385	.3162	.2953	.2758	.2574	.2401	.2238	.2084
.500	.2888	.2839	.2790	.2742	.2648	.2425	.2217	.2021	.1838	.1664	.1501	.1346
.400	.2222	.2173	.2124	.2076	.1982	.1759	.1550	.1355	.1171	.0998	.0835	.0680
.300	.1610	.1561	.1512	.1464	.1370	.1147	.0938	.0743	.0560	.0386	.0223	.0069
.250	.1319	.1270	.1221	.1173	.1079	.0857	.0648	.0452	.0268	.0095	-.0068	-.0223
.200	.1040	.0991	.0942	.0894	.0801	.0577	.0369	.0173	-.0011	-.0184	-.0347	-.0502
.150	.0768	.0719	.0670	.0622	.0529	.0305	.0097	-.0099	-.0283	-.0456	-.0619	-.0774
.100	.0506	.0456	.0408	.0360	.0266	.0043	-.0166	-.0362	-.0545	-.0719	-.0882	-.1037
.075	.0376	.0327	.0279	.0230	.0137	-.0087	-.0297	-.0491	-.0675	-.0848	-.1012	-.1166
.050	.0249	.0199	.0151	.0103	.0009	-.0214	-.0423	-.0619	-.0802	-.0976	-.1139	-.1294
.025	.0124	.0075	.0027	-.0022	-.0115	-.0339	-.0548	-.0743	-.0927	-.1100	-.1264	-.1419
0	0	-.0050	-.0098	-.0146	-.0240	-.0463	-.0672	-.0868	-.1052	-.1225	-.1388	-.1543
-.025	-.0122	-.0172	-.0220	-.0269	-.0362	-.0586	-.0795	-.0991	-.1174	-.1347	-.1511	-.1665
-.050	-.0243	-.0293	-.0341	-.0389	-.0483	-.0707	-.0916	-.1111	-.1295	-.1468	-.1632	-.1786
-.075	-.0363	-.0413	-.0461	-.0509	-.0603	-.0827	-.1036	-.1231	-.1415	-.1588	-.1752	-.1906
-.100	-.0485	-.0535	-.0583	-.0631	-.0725	-.0949	-.1157	-.1353	-.1537	-.1710	-.1874	-.2028
-.150	-.0712	-.0761	-.0809	-.0858	-.0952	-.1175	-.1384	-.1580	-.1763	-.1937	-.2100	-.2255
-.200	-.0939	-.0988	-.1036	-.1085	-.1179	-.1402	-.1611	-.1807	-.1991	-.2164	-.2327	-.2483
-.250	-.1161	-.1210	-.1258	-.1306	-.1401	-.1624	-.1833	-.2029	-.2213	-.2386	-.2550	-.2704
-.300	-.1379	-.1428	-.1476	-.1524	-.1619	-.1842	-.2051	-.2247	-.2431	-.2604	-.2768	-.2923
-.400	-.1800	-.1850	-.1898	-.1946	-.2040	-.2264	-.2473	-.2668	-.2852	-.3026	-.3190	-.3344
-.500	-.2207	-.2257	-.2305	-.2353	-.2447	-.2671	-.2880	-.3076	-.3260	-.3433	-.3597	-.3752
-.600	-.2602	-.2651	-.2700	-.2748	-.2842	-.3066	-.3275	-.3471	-.3655	-.3828	-.3992	-.4147
-.700	-.2983	-.3032	-.3081	-.3129	-.3223	-.3447	-.3656	-.3852	-.4036	-.4209	-.4373	-.4528
-.800	-.3353	-.3402	-.3451	-.3499	-.3593	-.3817	-.4026	-.4222	-.4406	-.4580	-.4743	-.4898

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.20\right]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.5390	0.5342	0.5293	0.5245	0.5152	0.4930	0.4723	0.4528	0.4346	0.4173	0.4010	0.3856
.700	.4412	.4364	.4315	.4268	.4174	.3952	.3744	.3550	.3367	.3194	.3032	.2878
.600	.3585	.3537	.3488	.3441	.3347	.3125	.2917	.2722	.2539	.2367	.2204	.2051
.500	.2856	.2807	.2759	.2711	.2618	.2395	.2188	.1993	.1810	.1638	.1475	.1321
.400	.2197	.2148	.2100	.2052	.1959	.1736	.1529	.1334	.1151	.0978	.0815	.0661
.300	.1592	.1543	.1494	.1447	.1353	.1131	.0923	.0728	.0545	.0372	.0209	.0055
.250	.1305	.1256	.1207	.1160	.1066	.0843	.0635	.0441	.0258	.0085	-.0078	-.0232
.200	.1028	.0979	.0930	.0883	.0789	.0566	.0359	.0163	-.0020	-.0192	-.0355	-.0509
.150	.0760	.0711	.0662	.0614	.0521	.0299	.0090	-.0105	-.0288	-.0461	-.0623	-.0778
.100	.0499	.0450	.0401	.0353	.0260	.0037	-.0171	-.0366	-.0549	-.0722	-.0885	-.1039
.075	.0372	.0323	.0274	.0226	.0133	-.0090	-.0298	-.0493	-.0676	-.0849	-.1012	-.1166
.050	.0246	.0197	.0149	.0100	.0007	-.0216	-.0424	-.0619	-.0802	-.0975	-.1138	-.1293
.025	.0122	.0073	.0025	-.0024	-.0117	-.0339	-.0548	-.0743	-.0927	-.1099	-.1262	-.1417
0	0	-.0049	-.0098	-.0147	-.0239	-.0462	-.0670	-.0865	-.1048	-.1222	-.1384	-.1539
-.025	-.0121	-.0170	-.0219	-.0267	-.0360	-.0583	-.0791	-.0986	-.1170	-.1342	-.1506	-.1660
-.050	-.0240	-.0289	-.0338	-.0386	-.0479	-.0702	-.0910	-.1105	-.1289	-.1462	-.1625	-.1779
-.075	-.0358	-.0407	-.0456	-.0504	-.0597	-.0820	-.1028	-.1224	-.1407	-.1580	-.1743	-.1898
-.100	-.0475	-.0524	-.0573	-.0621	-.0714	-.0937	-.1145	-.1341	-.1524	-.1697	-.1860	-.2014
-.150	-.0703	-.0752	-.0801	-.0848	-.0942	-.1165	-.1374	-.1569	-.1752	-.1925	-.2088	-.2243
-.200	-.0927	-.0977	-.1025	-.1073	-.1166	-.1389	-.1598	-.1793	-.1977	-.2149	-.2313	-.2467
-.250	-.1146	-.1196	-.1244	-.1292	-.1386	-.1608	-.1817	-.2012	-.2196	-.2369	-.2532	-.2687
-.300	-.1361	-.1410	-.1458	-.1506	-.1600	-.1823	-.2031	-.2227	-.2410	-.2583	-.2746	-.2901
-.400	-.1777	-.1826	-.1874	-.1922	-.2016	-.2240	-.2448	-.2643	-.2827	-.3000	-.3163	-.3318
-.500	-.2178	-.2227	-.2276	-.2323	-.2417	-.2640	-.2849	-.3044	-.3229	-.3402	-.3565	-.3719
-.600	-.2564	-.2613	-.2662	-.2710	-.2803	-.3027	-.3236	-.3431	-.3615	-.3788	-.3952	-.4106
-.700	-.2941	-.2990	-.3039	-.3087	-.3181	-.3404	-.3613	-.3808	-.3992	-.4166	-.4329	-.4484
-.800	-.3303	-.3354	-.3402	-.3450	-.3544	-.3768	-.3977	-.4172	-.4356	-.4529	-.4693	-.4848

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.25\right]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.5314	0.5266	0.5217	0.5170	0.5077	0.4857	0.4650	0.4457	0.4275	0.4104	0.3941	0.3789
.700	.4352	.4304	.4256	.4208	.4115	.3894	.3688	.3494	.3312	.3141	.2979	.2825
.600	.3537	.3488	.3440	.3392	.3300	.3078	.2872	.2678	.2496	.2325	.2163	.2009
.500	.2817	.2768	.2720	.2672	.2579	.2358	.2151	.1957	.1775	.1604	.1441	.1288
.400	.2166	.2117	.2069	.2021	.1928	.1707	.1500	.1306	.1124	.0952	.0789	.0636
.300	.1567	.1519	.1470	.1423	.1330	.1109	.0902	.0707	.0525	.0353	.0191	.0037
.250	.1286	.1237	.1189	.1141	.1048	.0827	.0620	.0426	.0243	.0071	-.0091	-.0245
.200	.1012	.0963	.0915	.0867	.0774	.0552	.0345	.0151	-.0031	-.0203	-.0366	-.0520
.150	.0748	.0699	.0651	.0603	.0510	.0289	.0081	-.0113	-.0293	-.0467	-.0630	-.0784
.100	.0492	.0443	.0395	.0347	.0254	.0032	-.0175	-.0369	-.0552	-.0724	-.0887	-.1040
.075	.0366	.0317	.0269	.0222	.0129	-.0093	-.0301	-.0495	-.0677	-.0850	-.1012	-.1166
.050	.0243	.0194	.0145	.0098	.0005	-.0217	-.0424	-.0618	-.0801	-.0973	-.1136	-.1290
.025	.0120	.0071	.0023	-.0025	-.0117	-.0340	-.0547	-.0741	-.0924	-.1096	-.1259	-.1413
0	0	-.0049	-.0097	-.0145	-.0238	-.0460	-.0667	-.0862	-.1045	-.1217	-.1380	-.1534
-.025	-.0119	-.0168	-.0216	-.0264	-.0357	-.0579	-.0786	-.0981	-.1163	-.1335	-.1499	-.1652
-.050	-.0236	-.0285	-.0333	-.0381	-.0474	-.0696	-.0904	-.1098	-.1281	-.1453	-.1616	-.1770
-.075	-.0353	-.0402	-.0450	-.0497	-.0591	-.0813	-.1021	-.1215	-.1398	-.1570	-.1733	-.1886
-.100	-.0466	-.0513	-.0561	-.0611	-.0704	-.0926	-.1134	-.1329	-.1512	-.1684	-.1846	-.2000
-.150	-.0692	-.0741	-.0789	-.0837	-.0931	-.1153	-.1360	-.1555	-.1738	-.1910	-.2073	-.2227
-.200	-.0912	-.0961	-.1009	-.1057	-.1151	-.1373	-.1581	-.1775	-.1958	-.2130	-.2293	-.2448
-.250	-.1127	-.1176	-.1225	-.1272	-.1365	-.1588	-.1796	-.1990	-.2173	-.2346	-.2509	-.2663
-.300	-.1338	-.1388	-.1436	-.1483	-.1577	-.1799	-.2007	-.2202	-.2385	-.2557	-.2720	-.2874
-.400	-.1748	-.1797	-.1845	-.1893	-.1986	-.2209	-.2416	-.2611	-.2794	-.2967	-.3130	-.3285
-.500	-.2141	-.2190	-.2238	-.2286	-.2379	-.2602	-.2810	-.3005	-.3188	-.3361	-.3524	-.3678
-.600	-.2521	-.2570	-.2618	-.2666	-.2760	-.2982	-.3190	-.3385	-.3569	-.3742	-.3905	-.4060
-.700	-.2888	-.2937	-.2985	-.3033	-.3127	-.3349	-.3558	-.3753	-.3937	-.4110	-.4273	-.4427
-.800	-.3244	-.3293	-.3342	-.3389	-.3483	-.3706	-.3914	-.4109	-.4293	-.4467	-.4630	-.4785

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.30]$

K $\frac{\Delta H}{q_o}$	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.5224	0.5176	0.5128	0.5081	0.4989	0.4769	0.4564	0.4372	0.4191	0.4021	0.3860	0.3707
.700	.4280	.4231	.4184	.4136	.4045	.3825	.3620	.3427	.3246	.3076	.2914	.2762
.600	.3477	.3429	.3381	.3334	.3241	.3022	.2817	.2624	.2443	.2272	.2111	.1958
.500	.2769	.2721	.2673	.2626	.2533	.2314	.2108	.1915	.1734	.1563	.1402	.1249
.400	.2129	.2081	.2033	.1985	.1893	.1673	.1467	.1274	.1093	.0921	.0760	.0607
.300	.1540	.1492	.1444	.1397	.1304	.1084	.0878	.0685	.0503	.0332	.0170	.0017
.250	.1263	.1214	.1166	.1119	.1027	.0806	.0600	.0407	.0225	.0054	-.0108	-.0261
.200	.0995	.0946	.0898	.0851	.0758	.0538	.0332	.0138	-.0043	-.0215	-.0376	-.0530
.150	.0734	.0685	.0637	.0590	.0497	.0277	.0071	-.0122	-.0304	-.0476	-.0637	-.0791
.100	.0482	.0434	.0386	.0338	.0246	.0025	-.0181	-.0374	-.0556	-.0728	-.0890	-.1043
.075	.0359	.0311	.0263	.0215	.0123	-.0098	-.0304	-.0498	-.0680	-.0851	-.1010	-.1168
.050	.0237	.0189	.0141	.0093	.0001	-.0220	-.0426	-.0620	-.0802	-.0973	-.1135	-.1289
.025	.0119	.0070	.0022	-.0025	-.0118	-.0339	-.0545	-.0738	-.0921	-.1092	-.1254	-.1408
0	0	-.0049	-.0097	-.0144	-.0237	-.0457	-.0664	-.0858	-.1040	-.1211	-.1374	-.1527
-.025	-.0117	-.0166	-.0214	-.0261	-.0354	-.0575	-.0781	-.0975	-.1157	-.1329	-.1491	-.1644
-.050	-.0232	-.0281	-.0328	-.0376	-.0469	-.0689	-.0896	-.1090	-.1272	-.1443	-.1606	-.1760
-.075	-.0346	-.0395	-.0442	-.0490	-.0583	-.0803	-.1010	-.1204	-.1386	-.1558	-.1720	-.1874
-.100	-.0458	-.0507	-.0554	-.0602	-.0695	-.0916	-.1123	-.1316	-.1498	-.1670	-.1832	-.1986
-.150	-.0678	-.0727	-.0775	-.0822	-.0916	-.1136	-.1343	-.1537	-.1719	-.1892	-.2053	-.2207
-.200	-.0895	-.0943	-.0991	-.1039	-.1131	-.1353	-.1560	-.1753	-.1936	-.2108	-.2270	-.2424
-.250	-.1105	-.1154	-.1202	-.1249	-.1342	-.1564	-.1770	-.1965	-.2147	-.2319	-.2481	-.2635
-.300	-.1312	-.1361	-.1409	-.1457	-.1550	-.1771	-.1978	-.2172	-.2354	-.2527	-.2689	-.2843
-.400	-.1712	-.1761	-.1809	-.1856	-.1950	-.2171	-.2378	-.2572	-.2755	-.2927	-.3090	-.3244
-.500	-.2097	-.2146	-.2194	-.2241	-.2334	-.2556	-.2764	-.2958	-.3141	-.3313	-.3475	-.3630
-.600	-.2467	-.2516	-.2564	-.2612	-.2705	-.2927	-.3135	-.3329	-.3512	-.3685	-.3848	-.4002
-.700	-.2825	-.2874	-.2922	-.2970	-.3063	-.3285	-.3493	-.3687	-.3871	-.4043	-.4207	-.4361
-.800	-.3173	-.3222	-.3271	-.3318	-.3411	-.3634	-.3842	-.4036	-.4220	-.4393	-.4556	-.4710

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.35\right]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.5118	0.5070	0.5022	0.4975	0.4884	0.4667	0.4463	0.4272	0.4093	0.3923	0.3763	0.3612
.700	.4194	.4146	.4098	.4052	.3961	.3743	.3539	.3348	.3168	.2999	.2859	.2687
.600	.3409	.3361	.3313	.3267	.3175	.2957	.2753	.2562	.2382	.2212	.2052	.1900
.500	.2714	.2665	.2618	.2571	.2480	.2262	.2057	.1866	.1686	.1516	.1355	.1203
.400	.2085	.2037	.1989	.1943	.1851	.1633	.1428	.1236	.1056	.0886	.0725	.0573
.300	.1509	.1461	.1413	.1366	.1274	.1055	.0851	.0658	.0478	.0308	.0147	-.0005
.250	.1236	.1188	.1141	.1094	.1002	.0783	.0578	.0386	.0205	.0035	-.0126	-.0279
.200	.0973	.0925	.0877	.0831	.0739	.0520	.0315	.0122	-.0059	-.0229	-.0390	-.0542
.150	.0719	.0671	.0623	.0576	.0484	.0265	.0060	-.0133	-.0314	-.0484	-.0645	-.0798
.100	.0473	.0424	.0376	.0330	.0237	.0018	-.0187	-.0379	-.0561	-.0731	-.0892	-.1045
.075	.0351	.0305	.0257	.0210	.0119	-.0101	-.0306	-.0499	-.0680	-.0851	-.1012	-.1165
.050	.0232	.0184	.0136	.0089	-.0003	-.0223	-.0428	-.0620	-.0802	-.0972	-.1134	-.1286
.025	.0116	.0068	.0020	-.0027	-.0119	-.0339	-.0544	-.0737	-.0918	-.1089	-.1250	-.1403
0	0	-.0049	-.0096	-.0144	-.0235	-.0455	-.0660	-.0853	-.1035	-.1205	-.1366	-.1519
-.025	-.0114	-.0164	-.0210	-.0257	-.0350	-.0569	-.0775	-.0967	-.1149	-.1319	-.1481	-.1634
-.050	-.0226	-.0275	-.0322	-.0369	-.0462	-.0682	-.0887	-.1080	-.1261	-.1432	-.1594	-.1747
-.075	-.0338	-.0386	-.0434	-.0481	-.0574	-.0793	-.0999	-.1191	-.1373	-.1544	-.1705	-.1858
-.100	-.0447	-.0495	-.0543	-.0590	-.0683	-.0902	-.1108	-.1301	-.1482	-.1653	-.1815	-.1968
-.150	-.0664	-.0712	-.0760	-.0807	-.0899	-.1119	-.1325	-.1518	-.1699	-.1870	-.2032	-.2185
-.200	-.0869	-.0917	-.0965	-.1012	-.1105	-.1324	-.1530	-.1724	-.1905	-.2076	-.2238	-.2392
-.250	-.1079	-.1128	-.1176	-.1223	-.1315	-.1536	-.1742	-.1935	-.2116	-.2288	-.2450	-.2603
-.300	-.1281	-.1329	-.1377	-.1424	-.1517	-.1737	-.1943	-.2136	-.2318	-.2490	-.2651	-.2805
-.400	-.1671	-.1720	-.1767	-.1814	-.1907	-.2128	-.2334	-.2528	-.2709	-.2881	-.3043	-.3197
-.500	-.2045	-.2093	-.2141	-.2188	-.2281	-.2502	-.2709	-.2902	-.3084	-.3256	-.3419	-.3572
-.600	-.2402	-.2451	-.2499	-.2546	-.2639	-.2860	-.3066	-.3260	-.3443	-.3615	-.3778	-.3932
-.700	-.2755	-.2804	-.2852	-.2900	-.2992	-.3214	-.3421	-.3614	-.3798	-.3970	-.4133	-.4286
-.800	-.3090	-.3140	-.3188	-.3235	-.3328	-.3549	-.3757	-.3951	-.4134	-.4306	-.4469	-.4623

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.40]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.4998	0.4951	0.4904	0.4858	0.4767	0.4552	0.4350	0.4160	0.3983	0.3815	0.3656	0.3506
.700	.4100	.4052	.4005	.3959	.3868	.3652	.3451	.3261	.3083	.2914	.2755	.2605
.600	.3331	.3283	.3236	.3190	.3099	.2883	.2681	.2491	.2312	.2144	.1984	.1833
.500	.2652	.2604	.2557	.2510	.2419	.2203	.2000	.1810	.1631	.1462	.1303	.1152
.400	.2038	.1990	.1943	.1896	.1805	.1589	.1385	.1195	.1016	.0847	.0687	.0536
.300	.1472	.1425	.1377	.1331	.1240	.1022	.0819	.0628	.0449	.0280	.0119	-.0032
.250	.1206	.1159	.1112	.1065	.0974	.0756	.0553	.0362	.0184	.0013	-.0147	-.0299
.200	.0950	.0902	.0855	.0808	.0717	.0500	.0296	.0105	-.0075	-.0244	-.0405	-.0556
.150	.0701	.0653	.0606	.0559	.0468	.0250	.0047	-.0145	-.0323	-.0494	-.0654	-.0806
.100	.0460	.0412	.0365	.0318	.0227	.0009	-.0194	-.0386	-.0566	-.0736	-.0896	-.1048
.075	.0343	.0295	.0248	.0201	.0110	-.0108	-.0312	-.0503	-.0682	-.0853	-.1014	-.1166
.050	.0227	.0180	.0132	.0085	-.0006	-.0224	-.0428	-.0620	-.0798	-.0970	-.1130	-.1282
.025	.0112	.0064	.0017	-.0030	-.0121	-.0339	-.0543	-.0735	-.0913	-.1085	-.1246	-.1398
0	0	-.0048	-.0095	-.0143	-.0234	-.0452	-.0656	-.0847	-.1028	-.1198	-.1359	-.1511
-.025	-.0112	-.0160	-.0207	-.0254	-.0346	-.0564	-.0768	-.0960	-.1138	-.1310	-.1470	-.1623
-.050	-.0221	-.0269	-.0316	-.0363	-.0455	-.0673	-.0877	-.1069	-.1247	-.1419	-.1580	-.1733
-.075	-.0330	-.0378	-.0425	-.0472	-.0563	-.0782	-.0986	-.1178	-.1357	-.1529	-.1690	-.1842
-.100	-.0436	-.0484	-.0532	-.0578	-.0669	-.0889	-.1093	-.1285	-.1465	-.1635	-.1797	-.1949
-.150	-.0646	-.0694	-.0741	-.0788	-.0880	-.1099	-.1303	-.1495	-.1674	-.1846	-.2007	-.2160
-.200	-.0851	-.0899	-.0946	-.0993	-.1085	-.1304	-.1508	-.1701	-.1881	-.2052	-.2213	-.2365
-.250	-.1051	-.1099	-.1147	-.1194	-.1285	-.1504	-.1709	-.1901	-.2080	-.2253	-.2414	-.2567
-.300	-.1247	-.1295	-.1342	-.1390	-.1481	-.1700	-.1906	-.2098	-.2278	-.2449	-.2611	-.2764
-.400	-.1625	-.1673	-.1721	-.1767	-.1860	-.2079	-.2284	-.2477	-.2658	-.2829	-.2991	-.3144
-.500	-.1989	-.2038	-.2085	-.2132	-.2224	-.2444	-.2649	-.2843	-.3024	-.3195	-.3357	-.3510
-.600	-.2338	-.2387	-.2435	-.2482	-.2574	-.2794	-.3000	-.3193	-.3374	-.3546	-.3708	-.3873
-.700	-.2674	-.2723	-.2771	-.2818	-.2910	-.3131	-.3337	-.3531	-.3713	-.3884	-.4046	-.4200
-.800	-.3000	-.3049	-.3097	-.3144	-.3237	-.3457	-.3663	-.3857	-.4040	-.4212	-.4374	-.4528

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.45]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.4868	0.4821	0.4775	0.4729	0.4639	0.4426	0.4226	0.4039	0.3862	0.3695	0.3538	0.3389
.700	.3993	.3945	.3900	.3853	.3764	.3550	.3350	.3162	.2985	.2818	.2660	.2511
.600	.3245	.3198	.3151	.3105	.3015	.2801	.2601	.2412	.2235	.2068	.1910	.1760
.500	.2582	.2535	.2488	.2442	.2352	.2138	.1937	.1748	.1571	.1403	.1245	.1095
.400	.1983	.1936	.1889	.1843	.1753	.1538	.1337	.1148	.0970	.0802	.0643	.0493
.300	.1433	.1386	.1339	.1293	.1203	.0988	.0786	.0596	.0418	.0250	.0091	-.0060
.250	.1174	.1127	.1080	.1034	.0943	.0728	.0526	.0337	.0158	-.0010	-.0169	-.0320
.200	.0924	.0877	.0830	.0784	.0693	.0477	.0276	.0086	-.0093	-.0261	-.0420	-.0571
.150	.0682	.0635	.0588	.0542	.0451	.0235	.0033	-.0157	-.0336	-.0504	-.0664	-.0815
.100	.0448	.0401	.0354	.0307	.0217	.0001	-.0202	-.0392	-.0571	-.0740	-.0899	-.1050
.075	.0333	.0286	.0239	.0193	.0102	-.0114	-.0317	-.0507	-.0686	-.0855	-.1014	-.1165
.050	.0221	.0174	.0126	.0080	-.0010	-.0227	-.0429	-.0620	-.0798	-.0967	-.1127	-.1278
.025	.0109	.0062	.0015	-.0032	-.0122	-.0339	-.0541	-.0732	-.0910	-.1080	-.1240	-.1391
0	0	-.0048	-.0095	-.0141	-.0232	-.0449	-.0651	-.0841	-.1021	-.1190	-.1350	-.1501
-.025	-.0109	-.0157	-.0203	-.0250	-.0341	-.0557	-.0760	-.0951	-.1130	-.1299	-.1459	-.1611
-.050	-.0216	-.0263	-.0310	-.0356	-.0447	-.0664	-.0867	-.1058	-.1237	-.1406	-.1566	-.1718
-.075	-.0320	-.0368	-.0415	-.0461	-.0552	-.0769	-.0972	-.1162	-.1342	-.1511	-.1672	-.1823
-.100	-.0423	-.0471	-.0518	-.0565	-.0656	-.0872	-.1076	-.1266	-.1446	-.1615	-.1776	-.1927
-.150	-.0627	-.0675	-.0722	-.0768	-.0859	-.1076	-.1280	-.1470	-.1650	-.1820	-.1980	-.2132
-.200	-.0826	-.0873	-.0920	-.0967	-.1058	-.1275	-.1479	-.1670	-.1849	-.2019	-.2179	-.2332
-.250	-.1020	-.1068	-.1115	-.1161	-.1252	-.1470	-.1674	-.1865	-.2045	-.2214	-.2375	-.2527
-.300	-.1210	-.1258	-.1305	-.1351	-.1443	-.1660	-.1864	-.2055	-.2236	-.2406	-.2567	-.2719
-.400	-.1576	-.1624	-.1672	-.1718	-.1809	-.2028	-.2232	-.2423	-.2604	-.2774	-.2935	-.3088
-.500	-.1932	-.1981	-.2028	-.2075	-.2166	-.2384	-.2589	-.2781	-.2962	-.3132	-.3293	-.3446
-.600	-.2265	-.2313	-.2361	-.2407	-.2499	-.2718	-.2922	-.3115	-.3296	-.3466	-.3628	-.3781
-.700	-.2590	-.2638	-.2686	-.2733	-.2825	-.3044	-.3249	-.3442	-.3623	-.3794	-.3956	-.4109
-.800	-.2903	-.2952	-.3000	-.3047	-.3138	-.3358	-.3563	-.3756	-.3938	-.4109	-.4271	-.4425

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.50]$

K $\frac{\Delta H}{q_o}$	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.4725	0.4679	0.4633	0.4588	0.4499	0.4289	0.4091	0.3905	0.3730	0.3566	0.3409	0.3261
.700	.3878	.3832	.3786	.3741	.3652	.3440	.3243	.3056	.2881	.2716	.2559	.2411
.600	.3152	.3105	.3059	.3013	.2925	.2713	.2514	.2328	.2152	.1986	.1829	.1681
.500	.2507	.2460	.2414	.2369	.2280	.2069	.1869	.1681	.1505	.1339	.1182	.1033
.400	.1925	.1878	.1831	.1786	.1697	.1484	.1284	.1097	.0911	.0753	.0596	.0447
.300	.1390	.1343	.1297	.1251	.1162	.0949	.0749	.0561	.0384	.0217	.0060	.0090
.250	.1139	.1092	.1046	.1001	.0911	.0697	.0497	.0309	.0132	-.0035	-.0193	-.0343
.200	.0896	.0850	.0803	.0757	.0668	.0454	.0254	.0065	-.0112	-.0279	-.0438	-.0588
.150	.0661	.0614	.0567	.0522	.0432	.0218	.0017	-.0171	-.0349	-.0516	-.0675	-.0825
.100	.0434	.0387	.0340	.0294	.0204	-.0010	-.0211	-.0399	-.0577	-.0744	-.0903	-.1053
.075	.0323	.0276	.0229	.0184	.0093	-.0121	-.0322	-.0510	-.0688	-.0856	-.1015	-.1165
.050	.0214	.0167	.0121	.0075	-.0015	-.0230	-.0430	-.0620	-.0797	-.0965	-.1124	-.1274
.025	.0107	.0059	-.0013	-.0033	-.0123	-.0338	-.0539	-.0728	-.0906	-.1073	-.1232	-.1383
0	0	-.0047	-.0094	-.0140	-.0230	-.0445	-.0646	-.0835	-.1013	-.1181	-.1340	-.1491
-.025	-.0105	-.0152	-.0199	-.0245	-.0335	-.0550	-.0751	-.0940	-.1118	-.1286	-.1445	-.1596
-.050	-.0208	-.0255	-.0301	-.0347	-.0438	-.0652	-.0854	-.1043	-.1221	-.1390	-.1549	-.1699
-.075	-.0310	-.0357	-.0403	-.0449	-.0540	-.0755	-.0956	-.1146	-.1324	-.1492	-.1651	-.1802
-.100	-.0412	-.0460	-.0506	-.0552	-.0643	-.0858	-.1059	-.1249	-.1427	-.1596	-.1755	-.1905
-.150	-.0608	-.0655	-.0702	-.0748	-.0838	-.1058	-.1256	-.1445	-.1623	-.1792	-.1952	-.2103
-.200	-.0799	-.0847	-.0894	-.0939	-.1030	-.1246	-.1448	-.1638	-.1816	-.1985	-.2144	-.2296
-.250	-.0986	-.1034	-.1081	-.1127	-.1217	-.1433	-.1635	-.1826	-.2004	-.2173	-.2333	-.2484
-.300	-.1170	-.1218	-.1265	-.1311	-.1401	-.1617	-.1820	-.2010	-.2189	-.2358	-.2518	-.2669
-.400	-.1524	-.1572	-.1619	-.1665	-.1756	-.1972	-.2175	-.2366	-.2545	-.2714	-.2874	-.3026
-.500	-.1863	-.1911	-.1958	-.2004	-.2095	-.2312	-.2515	-.2706	-.2886	-.3055	-.3216	-.3368
-.600	-.2188	-.2236	-.2283	-.2330	-.2421	-.2638	-.2842	-.3033	-.3213	-.3380	-.3544	-.3697
-.700	-.2501	-.2548	-.2596	-.2642	-.2734	-.2952	-.3156	-.3347	-.3528	-.3698	-.3859	-.4012
-.800	-.2802	-.2851	-.2898	-.2945	-.3036	-.3254	-.3459	-.3651	-.3832	-.4002	-.4164	-.4317

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.55]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.4572	0.4527	0.4481	0.4437	0.4350	0.4141	0.3946	0.3762	0.3589	0.3425	0.3271	0.3125
.700	.3755	.3709	.3664	.3619	.3532	.3323	.3127	.2943	.2769	.2605	.2451	.2304
.600	.3051	.3005	.2959	.2914	.2827	.2617	.2421	.2237	.2062	.1898	.1742	.1595
.500	.2427	.2381	.2336	.2291	.2203	.1992	.1796	.1610	.1436	.1271	.1115	.0967
.400	.1862	.1816	.1771	.1726	.1637	.1427	.1229	.1043	.0868	.0704	.0547	.0399
.300	.1346	.1299	.1253	.1208	.1119	.0908	.0710	.0524	.0348	.0183	.0026	-.0122
.250	.1101	.1054	.1009	.0963	.0875	.0663	.0465	.0279	.0103	-.0063	-.0220	-.0368
.200	.0862	.0816	.0770	.0725	.0636	.0424	.0225	.0039	-.0137	-.0303	-.0460	-.0609
.150	.0639	.0592	.0546	.0500	.0412	.0200	.0001	-.0186	-.0362	-.0528	-.0685	-.0835
.100	.0419	.0372	.0326	.0281	.0192	-.0020	-.0220	-.0407	-.0583	-.0749	-.0907	-.1056
.075	.0311	.0265	.0219	.0173	.0084	-.0128	-.0327	-.0515	-.0691	-.0858	-.1015	-.1164
.050	.0206	.0160	.0114	.0068	-.0021	-.0233	-.0433	-.0620	-.0796	-.0963	-.1121	-.1270
.025	.0103	.0056	.0010	-.0036	-.0125	-.0337	-.0537	-.0724	-.0901	-.1068	-.1226	-.1375
0	0	-.0047	-.0093	-.0138	-.0228	-.0441	-.0640	-.0828	-.1004	-.1171	-.1329	-.1479
-.025	-.0101	-.0148	-.0194	-.0239	-.0329	-.0541	-.0741	-.0929	-.1106	-.1273	-.1431	-.1581
-.050	-.0201	-.0248	-.0294	-.0339	-.0429	-.0642	-.0842	-.1029	-.1206	-.1373	-.1531	-.1681
-.075	-.0300	-.0347	-.0393	-.0438	-.0528	-.0741	-.0941	-.1129	-.1306	-.1473	-.1631	-.1781
-.100	-.0395	-.0443	-.0489	-.0534	-.0624	-.0837	-.1037	-.1225	-.1402	-.1570	-.1728	-.1878
-.150	-.0586	-.0636	-.0680	-.0726	-.0815	-.1028	-.1229	-.1417	-.1594	-.1762	-.1920	-.2070
-.200	-.0772	-.0819	-.0865	-.0911	-.1000	-.1214	-.1415	-.1603	-.1781	-.1948	-.2107	-.2257
-.250	-.0951	-.0999	-.1045	-.1091	-.1180	-.1394	-.1595	-.1784	-.1962	-.2129	-.2288	-.2439
-.300	-.1128	-.1175	-.1222	-.1267	-.1357	-.1571	-.1772	-.1961	-.2139	-.2307	-.2466	-.2617
-.400	-.1468	-.1516	-.1562	-.1608	-.1698	-.1913	-.2115	-.2304	-.2482	-.2651	-.2810	-.2961
-.500	-.1794	-.1841	-.1888	-.1934	-.2025	-.2240	-.2441	-.2631	-.2810	-.2979	-.3139	-.3290
-.600	-.2106	-.2153	-.2201	-.2247	-.2337	-.2553	-.2755	-.2945	-.3125	-.3294	-.3454	-.3606
-.700	-.2407	-.2455	-.2501	-.2548	-.2638	-.2855	-.3057	-.3248	-.3428	-.3597	-.3758	-.3910
-.800	-.2696	-.2743	-.2790	-.2837	-.2928	-.3144	-.3348	-.3539	-.3718	-.3889	-.4050	-.4202

NATIONAL ADVISORY
COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.60\right]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.4411	0.4366	0.4321	0.4277	0.4191	0.3986	0.3793	0.3612	0.3440	0.3279	0.3126	0.2980
.700	.3625	.3579	.3534	.3491	.3404	.3198	.3005	.2822	.2650	.2488	.2335	.2190
.600	.2945	.2899	.2855	.2811	.2724	.2517	.2323	.2140	.1968	.1805	.1651	.1505
.500	.2342	.2297	.2252	.2208	.2120	.1913	.1718	.1535	.1362	.1199	.1045	.0898
.400	.1797	.1751	.1706	.1662	.1574	.1366	.1171	.0987	.0813	.0650	.0495	.0348
.300	.1297	.1251	.1206	.1161	.1074	.0865	.0668	.0484	.0310	.0146	-.0009	-.0157
.250	.1062	.1016	.0971	.0926	.0838	.0629	.0432	.0248	.0074	-.0090	-.0246	-.0394
.200	.0834	.0788	.0743	.0698	.0611	.0401	.0204	.0019	-.0155	-.0319	-.0476	-.0623
.150	.0616	.0570	.0525	.0479	.0391	.0182	-.0015	-.0200	-.0375	-.0540	-.0696	-.0844
.100	.0404	.0358	.0313	.0268	.0180	-.0030	-.0227	-.0413	-.0588	-.0753	-.0909	-.1058
.075	.0300	.0254	.0209	.0164	.0075	-.0134	-.0332	-.0517	-.0692	-.0858	-.1014	-.1163
.050	.0199	.0153	.0107	.0062	-.0026	-.0237	-.0434	-.0620	-.0795	-.0960	-.1116	-.1265
.025	.0099	.0053	.0007	-.0038	-.0126	-.0337	-.0535	-.0720	-.0895	-.1061	-.1218	-.1366
0	0	-.0046	-.0092	-.0137	-.0226	-.0436	-.0634	-.0820	-.0995	-.1161	-.1317	-.1466
-.025	-.0098	-.0145	-.0190	-.0235	-.0323	-.0534	-.0732	-.0919	-.1094	-.1260	-.1417	-.1565
-.050	-.0194	-.0241	-.0286	-.0331	-.0420	-.0631	-.0829	-.1015	-.1190	-.1356	-.1513	-.1662
-.075	-.0288	-.0335	-.0380	-.0425	-.0514	-.0725	-.0923	-.1110	-.1285	-.1451	-.1608	-.1757
-.100	-.0380	-.0427	-.0472	-.0518	-.0606	-.0817	-.1015	-.1202	-.1378	-.1544	-.1701	-.1851
-.150	-.0564	-.0611	-.0657	-.0702	-.0790	-.1002	-.1201	-.1388	-.1563	-.1730	-.1887	-.2036
-.200	-.0743	-.0789	-.0835	-.0880	-.0969	-.1181	-.1380	-.1567	-.1743	-.1910	-.2068	-.2217
-.250	-.0915	-.0962	-.1008	-.1053	-.1142	-.1354	-.1553	-.1740	-.1916	-.2083	-.2242	-.2391
-.300	-.1084	-.1131	-.1177	-.1223	-.1312	-.1524	-.1723	-.1911	-.2088	-.2255	-.2413	-.2563
-.400	-.1408	-.1455	-.1501	-.1547	-.1636	-.1849	-.2049	-.2237	-.2414	-.2581	-.2740	-.2890
-.500	-.1722	-.1769	-.1816	-.1861	-.1951	-.2164	-.2365	-.2553	-.2731	-.2899	-.3057	-.3208
-.600	-.2023	-.2070	-.2116	-.2162	-.2252	-.2465	-.2667	-.2856	-.3034	-.3202	-.3361	-.3512
-.700	-.2309	-.2356	-.2403	-.2449	-.2539	-.2754	-.2955	-.3145	-.3323	-.3492	-.3651	-.3803
-.800	-.2585	-.2632	-.2679	-.2725	-.2816	-.3031	-.3232	-.3423	-.3601	-.3770	-.3931	-.4083

NATIONAL ADVISORY
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TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.65]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.4242	0.4197	0.4153	0.4110	0.4025	0.3822	0.3632	0.3453	0.3284	0.3124	0.2973	0.2829
.700	.3488	.3443	.3399	.3356	.3271	.3067	.2876	.2696	.2526	.2366	.2214	.2070
.600	.2834	.2789	.2745	.2701	.2616	.2411	.2220	.2039	.1869	.1708	.1556	.1411
.500	.2253	.2208	.2163	.2119	.2034	.1829	.1636	.1455	.1284	.1122	.0969	.0824
.400	.1729	.1683	.1639	.1595	.1509	.1303	.1110	.0928	.0757	.0594	.0441	.0295
.300	.1248	.1202	.1158	.1114	.1027	.0821	.0627	.0444	.0272	.0110	-.0045	-.0191
.250	.1021	.0975	.0931	.0886	.0799	.0593	.0398	.0216	.0043	-.0120	-.0274	-.0420
.200	.0803	.0758	.0713	.0669	.0582	.0374	.0180	-.0003	-.0175	-.0339	-.0494	-.0640
.150	.0591	.0546	.0501	.0457	.0370	.0162	-.0033	-.0216	-.0389	-.0553	-.0707	-.0854
.100	.0388	.0342	.0297	.0253	.0166	-.0042	-.0237	-.0421	-.0594	-.0758	-.0913	-.1060
.075	.0288	.0242	.0197	.0153	.0065	-.0142	-.0338	-.0522	-.0695	-.0859	-.1014	-.1162
.050	.0191	.0145	.0100	.0055	-.0032	-.0230	-.0435	-.0619	-.0793	-.0957	-.1112	-.1260
.025	.0095	.0049	.0005	-.0040	-.0128	-.0338	-.0532	-.0715	-.0889	-.1053	-.1209	-.1357
0	0	-.0046	-.0091	-.0135	-.0223	-.0431	-.0627	-.0811	-.0985	-.1150	-.1305	-.1453
-.025	-.0093	-.0139	-.0184	-.0229	-.0316	-.0525	-.0721	-.0905	-.1079	-.1244	-.1399	-.1547
-.050	-.0187	-.0232	-.0277	-.0322	-.0410	-.0619	-.0815	-.0999	-.1173	-.1337	-.1494	-.1642
-.075	-.0276	-.0322	-.0367	-.0412	-.0499	-.0708	-.0905	-.1090	-.1263	-.1428	-.1584	-.1732
-.100	-.0366	-.0412	-.0458	-.0502	-.0590	-.0799	-.0995	-.1180	-.1355	-.1519	-.1676	-.1824
-.150	-.0541	-.0587	-.0633	-.0677	-.0765	-.0974	-.1171	-.1357	-.1531	-.1676	-.1852	-.2001
-.200	-.0712	-.0758	-.0803	-.0848	-.0936	-.1146	-.1345	-.1528	-.1703	-.1868	-.2025	-.2173
-.250	-.0878	-.0925	-.0970	-.1015	-.1103	-.1313	-.1510	-.1696	-.1871	-.2037	-.2194	-.2343
-.300	-.1040	-.1087	-.1132	-.1177	-.1265	-.1476	-.1673	-.1859	-.2035	-.2200	-.2357	-.2507
-.400	-.1352	-.1399	-.1445	-.1490	-.1578	-.1789	-.1987	-.2173	-.2350	-.2516	-.2673	-.2823
-.500	-.1660	-.1707	-.1753	-.1798	-.1886	-.2098	-.2297	-.2484	-.2660	-.2827	-.2985	-.3135
-.600	-.1936	-.1983	-.2029	-.2075	-.2163	-.2375	-.2574	-.2762	-.2939	-.3106	-.3265	-.3415
-.700	-.2210	-.2257	-.2303	-.2348	-.2438	-.2651	-.2850	-.3039	-.3216	-.3384	-.3543	-.3693
-.800	-.2473	-.2520	-.2566	-.2612	-.2701	-.2915	-.3115	-.3304	-.3482	-.3650	-.3809	-.3960

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TABLE III - Continued

VALUES OF $\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.70]$

K $\frac{\Delta H}{q_o}$	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.4068	0.4024	0.3981	0.3938	0.3855	0.3655	0.3467	0.3290	0.3123	0.2966	0.2816	0.2674
.700	.3347	.3303	.3260	.3217	.3133	.2932	.2744	.2566	.2399	.2240	.2090	.1947
.600	.2720	.2676	.2633	.2590	.2505	.2304	.2114	.1936	.1767	.1608	.1458	.1314
.500	.2163	.2119	.2075	.2032	.1947	.1745	.1555	.1376	.1207	.1047	.0895	.0752
.400	.1657	.1613	.1569	.1526	.1440	.1237	.1046	.0866	.0697	.0537	.0384	.0239
.300	.1195	.1151	.1106	.1063	.0978	.0774	.0582	.0402	.0231	.0070	-.0083	-.0227
.250	.0979	.0934	.0889	.0846	.0760	.0556	.0364	.0183	.0013	-.0149	-.0302	-.0447
.200	.0769	.0724	.0680	.0636	.0550	.0345	.0153	-.0028	-.0199	-.0361	-.0514	-.0660
.150	.0567	.0522	.0478	.0434	.0348	.0143	-.0049	-.0231	-.0402	-.0564	-.0718	-.0864
.100	.0371	.0326	.0282	.0238	.0152	-.0054	-.0246	-.0428	-.0600	-.0762	-.0917	-.1062
.075	.0277	.0232	.0187	.0144	.0057	-.0148	-.0341	-.0523	-.0695	-.0857	-.1012	-.1158
.050	.0183	.0138	.0093	.0049	-.0037	-.0242	-.0436	-.0618	-.0790	-.0953	-.1106	-.1253
.025	.0090	.0045	.0001	-.0044	-.0130	-.0336	-.0529	-.0711	-.0884	-.1047	-.1200	-.1347
0	0	-.0045	-.0090	-.0134	-.0220	-.0427	-.0620	-.0803	-.0975	-.1138	-.1293	-.1438
-.025	-.0091	-.0136	-.0180	-.0224	-.0311	-.0517	-.0711	-.0894	-.1066	-.1229	-.1383	-.1530
-.050	-.0177	-.0223	-.0267	-.0311	-.0398	-.0604	-.0799	-.0981	-.1154	-.1317	-.1471	-.1618
-.075	-.0265	-.0310	-.0355	-.0399	-.0485	-.0692	-.0886	-.1069	-.1242	-.1405	-.1560	-.1707
-.100	-.0351	-.0397	-.0441	-.0485	-.0572	-.0779	-.0973	-.1157	-.1330	-.1493	-.1648	-.1795
-.150	-.0518	-.0563	-.0608	-.0652	-.0739	-.0947	-.1141	-.1324	-.1498	-.1662	-.1817	-.1964
-.200	-.0681	-.0727	-.0772	-.0816	-.0903	-.1110	-.1305	-.1489	-.1663	-.1826	-.1982	-.2130
-.250	-.0840	-.0886	-.0931	-.0975	-.1062	-.1270	-.1466	-.1649	-.1823	-.1987	-.2143	-.2291
-.300	-.0994	-.1040	-.1085	-.1130	-.1217	-.1425	-.1621	-.1805	-.1979	-.2144	-.2300	-.2448
-.400	-.1292	-.1338	-.1384	-.1428	-.1515	-.1724	-.1921	-.2106	-.2280	-.2445	-.2602	-.2750
-.500	-.1577	-.1623	-.1668	-.1713	-.1801	-.2011	-.2208	-.2393	-.2568	-.2734	-.2891	-.3040
-.600	-.1849	-.1896	-.1941	-.1986	-.2074	-.2284	-.2482	-.2668	-.2844	-.3010	-.3168	-.3317
-.700	-.2110	-.2156	-.2201	-.2246	-.2335	-.2546	-.2744	-.2930	-.3107	-.3274	-.3432	-.3582
-.800	-.2360	-.2406	-.2452	-.2497	-.2586	-.2798	-.2996	-.3183	-.3360	-.3527	-.3686	-.3836

NATIONAL ADVISORY
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TABLE III - Continued

VALUES OF $\left(\frac{\rho_2}{\rho_0}\right)^{1/2} - \left(\frac{q_2}{q_0}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_0 = 0.75\right]$

K / $\frac{\Delta H}{q_0}$	0	0.01	0 02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.3888	0.3844	0.3802	0.3760	0.3678	0.3481	0.3296	0.3121	0.2957	0.2801	0.2653	0.2513
.700	.3201	.3158	.3115	.3072	.2990	.2792	.2606	.2431	.2266	.2109	.1960	.1819
.600	.2597	.2554	.2511	.2468	.2385	.2186	.2000	.1824	.1657	.1500	.1351	.1209
.500	.2068	.2024	.1981	.1939	.1855	.1656	.1468	.1291	.1124	.0966	.0816	.0675
.400	.1585	.1541	.1498	.1455	.1371	.1171	.0982	.0805	.0637	.0478	.0328	.0185
.300	.1144	.1100	.1056	.1013	.0929	.0728	.0538	.0360	.0191	.0032	-.0119	-.0263
.250	.0935	.0891	.0847	.0804	.0720	.0518	.0329	.0150	-.0019	-.0179	-.0330	-.0474
.200	.0735	.0690	.0647	.0603	.0519	.0317	.0126	-.0053	-.0222	-.0382	-.0534	-.0678
.150	.0542	.0497	.0454	.0411	.0326	.0123	-.0067	-.0247	-.0416	-.0577	-.0729	-.0873
.100	.0355	.0310	.0267	.0223	.0138	-.0065	-.0256	-.0435	-.0605	-.0766	-.0919	-.1063
.075	.0264	.0219	.0175	.0132	.0047	-.0156	-.0348	-.0527	-.0698	-.0858	-.1011	-.1156
.050	.0174	.0130	.0086	.0043	-.0042	-.0246	-.0437	-.0617	-.0787	-.0948	-.1101	-.1246
.025	.0086	.0041	-.0002	-.0046	-.0131	-.0335	-.0526	-.0707	-.0877	-.1038	-.1191	-.1336
0	0	-.0045	-.0089	-.0132	-.0217	-.0421	-.0613	-.0793	-.0964	-.1125	-.1278	-.1424
-.025	-.0086	-.0130	-.0174	-.0218	-.0303	-.0507	-.0699	-.0880	-.1050	-.1212	-.1365	-.1511
-.050	-.0170	-.0215	-.0259	-.0302	-.0387	-.0592	-.0784	-.0965	-.1135	-.1297	-.1451	-.1596
-.075	-.0253	-.0298	-.0342	-.0386	-.0471	-.0676	-.0868	-.1049	-.1220	-.1382	-.1535	-.1681
-.100	-.0335	-.0380	-.0424	-.0467	-.0553	-.0757	-.0950	-.1131	-.1302	-.1464	-.1617	-.1764
-.150	-.0494	-.0539	-.0583	-.0627	-.0713	-.0918	-.1111	-.1292	-.1464	-.1626	-.1779	-.1926
-.200	-.0650	-.0696	-.0740	-.0784	-.0870	-.1075	-.1268	-.1450	-.1622	-.1784	-.1939	-.2085
-.250	-.0801	-.0846	-.0891	-.0935	-.1020	-.1226	-.1420	-.1602	-.1774	-.1937	-.2092	-.2238
-.300	-.0949	-.0994	-.1034	-.1083	-.1169	-.1375	-.1568	-.1751	-.1924	-.2087	-.2242	-.2389
-.400	-.1231	-.1276	-.1321	-.1365	-.1452	-.1658	-.1853	-.2036	-.2209	-.2373	-.2528	-.2676
-.500	-.1504	-.1549	-.1594	-.1638	-.1725	-.1933	-.2128	-.2311	-.2485	-.2649	-.2805	-.2953
-.600	-.1762	-.1808	-.1853	-.1897	-.1985	-.2193	-.2388	-.2573	-.2747	-.2912	-.3068	-.3217
-.700	-.2011	-.2057	-.2102	-.2146	-.2234	-.2443	-.2639	-.2824	-.2999	-.3164	-.3320	-.3470
-.800	-.2251	-.2297	-.2342	-.2387	-.2475	-.2684	-.2881	-.3067	-.3242	-.3409	-.3566	-.3716

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COMMITTEE FOR AERONAUTICS

TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.80]$

$\frac{\Delta H}{q_o}$ \ K	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.3706	0.3664	0.3622	0.3580	0.3500	0.3306	0.3124	0.2952	0.2789	0.2636	0.2490	0.2351
.700	.3053	.3010	.2968	.2927	.2845	.2651	.2468	.2295	.2131	.1977	.1830	.1691
.600	.2483	.2440	.2398	.2356	.2274	.2079	.1894	.1720	.1556	.1401	.1253	.1113
.500	.1973	.1930	.1888	.1846	.1764	.1567	.1382	.1207	.1042	.0886	.0738	.0597
.400	.1513	.1470	.1427	.1385	.1302	.1104	.0918	.0743	.0577	.0420	.0271	.0130
.300	.1091	.1047	.1005	.0962	.0879	.0680	.0493	.0318	.0151	-.0007	-.0157	-.0299
.250	.0893	.0849	.0806	.0764	.0680	.0482	.0294	.0117	-.0050	-.0208	-.0357	-.0500
.200	.0702	.0658	.0615	.0572	.0489	.0290	.0101	-.0075	-.0243	-.0401	-.0551	-.0694
.150	.0516	.0473	.0429	.0387	.0303	.0104	-.0085	-.0262	-.0430	-.0588	-.0739	-.0883
.100	.0338	.0295	.0251	.0209	.0125	-.0076	-.0264	-.0442	-.0610	-.0769	-.0920	-.1064
.075	.0252	.0208	.0165	.0122	.0038	-.0162	-.0351	-.0529	-.0697	-.0857	-.1008	-.1152
.050	.0166	.0123	.0079	.0036	-.0047	-.0248	-.0437	-.0615	-.0784	-.0943	-.1095	-.1238
.025	.0082	.0038	-.0005	-.0048	-.0132	-.0333	-.0522	-.0700	-.0869	-.1029	-.1180	-.1324
0	0	-.0044	-.0087	-.0130	-.0215	-.0416	-.0605	-.0784	-.0952	-.1112	-.1264	-.1408
-.025	-.0082	-.0126	-.0169	-.0212	-.0296	-.0498	-.0687	-.0866	-.1035	-.1195	-.1347	-.1491
-.050	-.0160	-.0205	-.0248	-.0291	-.0375	-.0577	-.0767	-.0946	-.1115	-.1275	-.1427	-.1571
-.075	-.0240	-.0284	-.0328	-.0371	-.0455	-.0657	-.0847	-.1026	-.1195	-.1356	-.1508	-.1652
-.100	-.0318	-.0362	-.0405	-.0448	-.0533	-.0735	-.0925	-.1104	-.1274	-.1434	-.1587	-.1731
-.150	-.0470	-.0515	-.0558	-.0601	-.0686	-.0888	-.1079	-.1259	-.1429	-.1589	-.1742	-.1887
-.200	-.0618	-.0663	-.0707	-.0750	-.0834	-.1038	-.1228	-.1409	-.1579	-.1740	-.1893	-.2038
-.250	-.0762	-.0807	-.0851	-.0894	-.0979	-.1182	-.1373	-.1554	-.1725	-.1886	-.2039	-.2185
-.300	-.0902	-.0947	-.0991	-.1035	-.1119	-.1323	-.1515	-.1696	-.1866	-.2028	-.2181	-.2327
-.400	-.1172	-.1217	-.1261	-.1305	-.1390	-.1594	-.1787	-.1968	-.2139	-.2302	-.2456	-.2603
-.500	-.1430	-.1475	-.1519	-.1563	-.1649	-.1854	-.2047	-.2229	-.2401	-.2564	-.2719	-.2866
-.600	-.1676	-.1721	-.1766	-.1810	-.1896	-.2102	-.2295	-.2478	-.2651	-.2814	-.2970	-.3117
-.700	-.1910	-.1956	-.2000	-.2044	-.2131	-.2337	-.2532	-.2715	-.2889	-.3052	-.3208	-.3357
-.800	-.2136	-.2181	-.2226	-.2270	-.2357	-.2565	-.2760	-.2944	-.3118	-.3282	-.3439	-.3587

NATIONAL ADVISORY
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TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$[M_o = 0.85]$

K $\frac{\Delta H}{q_o}$	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.3521	0.3479	0.3439	0.3398	0.3318	0.3128	0.2949	0.2779	0.2619	0.2467	0.2323	0.2186
.700	.2902	.2860	.2819	.2778	.2698	.2506	.2326	.2155	.1994	.1842	.1697	.1559
.600	.2361	.2318	.2277	.2236	.2155	.1962	.1781	.1610	.1448	.1294	.1148	.1010
.500	.1876	.1834	.1792	.1751	.1669	.1476	.1294	.1121	.0958	.0804	.0657	.0518
.400	.1438	.1396	.1354	.1312	.1231	.1036	.0852	.0679	.0516	.0361	.0213	.0073
.300	.1037	.0994	.0952	.0910	.0829	.0633	.0448	.0274	.0110	-.0046	-.0194	-.0335
.250	.0848	.0806	.0763	.0722	.0640	.0443	.0259	.0084	-.0081	-.0237	-.0386	-.0527
.200	.0667	.0624	.0581	.0539	.0457	.0260	.0075	-.0100	-.0265	-.0422	-.0571	-.0713
.150	.0491	.0448	.0406	.0364	.0281	.0084	-.0102	-.0277	-.0443	-.0600	-.0749	-.0891
.100	.0322	.0279	.0237	.0194	.0112	-.0086	-.0272	-.0448	-.0614	-.0771	-.0921	-.1063
.075	.0239	.0196	.0153	.0111	.0028	-.0170	-.0356	-.0532	-.0699	-.0856	-.1006	-.1148
.050	.0158	.0115	.0072	.0030	-.0053	-.0251	-.0438	-.0614	-.0780	-.0938	-.1088	-.1236
.025	.0077	.0035	-.0007	-.0050	-.0132	-.0331	-.0518	-.0694	-.0861	-.1019	-.1169	-.1312
0	0	-.0044	-.0086	-.0128	-.0212	-.0410	-.0597	-.0774	-.0944	-.1099	-.1249	-.1392
-.025	-.0078	-.0121	-.0164	-.0206	-.0290	-.0488	-.0676	-.0852	-.1019	-.1178	-.1328	-.1471
-.050	-.0154	-.0197	-.0240	-.0283	-.0366	-.0565	-.0752	-.0929	-.1096	-.1255	-.1406	-.1549
-.075	-.0229	-.0272	-.0315	-.0357	-.0441	-.0640	-.0827	-.1005	-.1171	-.1331	-.1481	-.1625
-.100	-.0303	-.0346	-.0389	-.0432	-.0515	-.0715	-.0902	-.1080	-.1248	-.1406	-.1557	-.1701
-.150	-.0447	-.0491	-.0534	-.0576	-.0660	-.0860	-.1048	-.1225	-.1394	-.1553	-.1704	-.1848
-.200	-.0588	-.0632	-.0675	-.0718	-.0801	-.1002	-.1191	-.1368	-.1537	-.1697	-.1848	-.1993
-.250	-.0725	-.0769	-.0812	-.0855	-.0939	-.1140	-.1329	-.1507	-.1676	-.1836	-.1988	-.2132
-.300	-.0858	-.0902	-.0945	-.0988	-.1072	-.1274	-.1463	-.1641	-.1811	-.1971	-.2123	-.2268
-.400	-.1113	-.1157	-.1201	-.1244	-.1328	-.1530	-.1721	-.1900	-.2070	-.2230	-.2383	-.2528
-.500	-.1357	-.1401	-.1445	-.1488	-.1573	-.1776	-.1966	-.2147	-.2317	-.2478	-.2632	-.2778
-.600	-.1590	-.1635	-.1679	-.1722	-.1807	-.2011	-.2203	-.2383	-.2554	-.2717	-.2870	-.3017
-.700	-.1813	-.1859	-.1902	-.1945	-.2031	-.2235	-.2428	-.2609	-.2781	-.2943	-.3098	-.3245
-.800	-.2025	-.2070	-.2114	-.2158	-.2244	-.2449	-.2642	-.2824	-.2997	-.3160	-.3315	-.3463

NATIONAL ADVISORY
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TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.90\right]$

K $\frac{\Delta H}{q_o}$	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.3336	0.3296	0.3256	0.3215	0.3137	0.2950	0.2774	0.2606	0.2449	0.2299	0.2157	0.2022
.700	.2752	.2711	.2670	.2630	.2551	.2363	.2185	.2017	.1859	.1708	.1565	.1428
.600	.2239	.2198	.2157	.2116	.2037	.1847	.1669	.1500	.1340	.1188	.1044	.0907
.500	.1780	.1738	.1697	.1657	.1577	.1386	.1206	.1036	.0876	.0723	.0578	.0441
.400	.1364	.1322	.1281	.1240	.1160	.0968	.0787	.0616	.0455	.0301	.0156	.0017
.300	.0983	.0942	.0900	.0859	.0778	.0585	.0403	.0232	.0069	-.0085	-.0231	-.0371
.250	.0805	.0763	.0721	.0680	.0599	.0405	.0223	.0051	-.0112	-.0266	-.0414	-.0553
.200	.0634	.0591	.0550	.0508	.0427	.0234	.0051	-.0122	-.0285	-.0440	-.0587	-.0727
.150	.0466	.0423	.0381	.0340	.0259	.0064	-.0119	-.0292	-.0456	-.0611	-.0759	-.0899
.100	.0305	.0263	.0221	.0179	.0097	-.0097	-.0281	-.0454	-.0619	-.0774	-.0922	-.1063
.075	.0227	.0184	.0142	.0101	.0019	-.0176	-.0360	-.0534	-.0698	-.0854	-.1002	-.1143
.050	.0150	.0107	.0065	.0023	-.0058	-.0254	-.0438	-.0612	-.0776	-.0932	-.1081	-.1222
.025	.0073	.0031	-.0011	-.0052	-.0134	-.0330	-.0515	-.0688	-.0853	-.1010	-.1158	-.1299
0	0	-.0043	-.0085	-.0127	-.0209	-.0404	-.0589	-.0763	-.0929	-.1085	-.1234	-.1375
-.025	-.0074	-.0117	-.0159	-.0201	-.0282	-.0479	-.0664	-.0838	-.1004	-.1160	-.1309	-.1451
-.050	-.0146	-.0189	-.0231	-.0273	-.0355	-.0551	-.0737	-.0911	-.1077	-.1234	-.1383	-.1524
-.075	-.0217	-.0260	-.0302	-.0343	-.0426	-.0622	-.0807	-.0982	-.1148	-.1305	-.1454	-.1596
-.100	-.0287	-.0330	-.0372	-.0414	-.0496	-.0693	-.0879	-.1054	-.1220	-.1377	-.1526	-.1668
-.150	-.0425	-.0468	-.0510	-.0552	-.0634	-.0832	-.1018	-.1193	-.1359	-.1517	-.1667	-.1809
-.200	-.0556	-.0599	-.0642	-.0684	-.0767	-.0964	-.1151	-.1326	-.1493	-.1651	-.1801	-.1944
-.250	-.0687	-.0730	-.0773	-.0815	-.0897	-.1095	-.1283	-.1459	-.1625	-.1784	-.1934	-.2077
-.300	-.0812	-.0856	-.0899	-.0941	-.1024	-.1222	-.1410	-.1586	-.1754	-.1912	-.2063	-.2206
-.400	-.1056	-.1099	-.1142	-.1185	-.1268	-.1467	-.1655	-.1833	-.2001	-.2160	-.2312	-.2456
-.500	-.1286	-.1330	-.1373	-.1415	-.1500	-.1700	-.1888	-.2066	-.2235	-.2395	-.2547	-.2692
-.600	-.1506	-.1550	-.1593	-.1636	-.1720	-.1921	-.2111	-.2289	-.2459	-.2619	-.2772	-.2917
-.700	-.1716	-.1760	-.1804	-.1847	-.1931	-.2133	-.2324	-.2503	-.2673	-.2835	-.2988	-.3133
-.800	-.1919	-.1963	-.2007	-.2050	-.2134	-.2337	-.2528	-.2708	-.2879	-.3041	-.3195	-.3341

NATIONAL ADVISORY
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TABLE III - Continued

VALUES OF $\left(\frac{p_2}{p_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Continued

$\left[M_o = 0.95\right]$

K $\frac{\Delta H}{q_o}$	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.3152	0.3112	0.3073	0.3034	0.2957	0.2772	0.2599	0.2435	0.2279	0.2132	0.1992	0.1858
.700	.2603	.2562	.2523	.2483	.2406	.2221	.2045	.1880	.1723	.1575	.1434	.1299
.600	.2118	.2077	.2037	.1998	.1920	.1734	.1557	.1391	.1233	.1084	.0941	.0806
.500	.1685	.1644	.1604	.1564	.1485	.1298	.1120	.0953	.0794	.0644	.0501	.0364
.400	.1291	.1249	.1209	.1169	.1090	.0901	.0722	.0554	.0395	.0243	.0100	-.0038
.300	.0931	.0889	.0849	.0808	.0729	.0539	.0360	.0191	.0030	-.0123	-.0271	-.0405
.250	.0762	.0720	.0679	.0639	.0559	.0369	.0189	.0019	-.0142	-.0295	-.0440	-.0578
.200	.0597	.0556	.0515	.0474	.0394	.0204	.0023	-.0147	-.0309	-.0462	-.0607	-.0746
.150	.0441	.0399	.0358	.0317	.0237	.0045	-.0135	-.0306	-.0468	-.0621	-.0768	-.0906
.100	.0288	.0247	.0206	.0164	.0084	-.0108	-.0289	-.0460	-.0622	-.0776	-.0923	-.1062
.075	.0215	.0173	.0131	.0091	.0011	-.0182	-.0364	-.0535	-.0698	-.0851	-.0998	-.1138
.050	.0141	.0100	.0058	.0017	-.0063	-.0256	-.0437	-.0609	-.0772	-.0926	-.1073	-.1213
.025	.0070	.0028	-.0013	-.0054	-.0135	-.0327	-.0510	-.0681	-.0845	-.0999	-.1145	-.1286
0	0	-.0042	-.0084	-.0125	-.0205	-.0398	-.0580	-.0753	-.0916	-.1070	-.1218	-.1358
-.025	-.0070	-.0112	-.0153	-.0194	-.0275	-.0468	-.0651	-.0823	-.0986	-.1141	-.1288	-.1429
-.050	-.0138	-.0180	-.0222	-.0263	-.0344	-.0538	-.0720	-.0893	-.1056	-.1211	-.1358	-.1499
-.075	-.0205	-.0247	-.0289	-.0330	-.0411	-.0605	-.0787	-.0960	-.1124	-.1279	-.1427	-.1567
-.100	-.0270	-.0313	-.0354	-.0395	-.0477	-.0671	-.0854	-.1026	-.1190	-.1346	-.1494	-.1634
-.150	-.0401	-.0444	-.0486	-.0527	-.0608	-.0802	-.0986	-.1159	-.1323	-.1479	-.1627	-.1769
-.200	-.0527	-.0569	-.0612	-.0653	-.0734	-.0929	-.1113	-.1287	-.1452	-.1608	-.1757	-.1897
-.250	-.0649	-.0692	-.0734	-.0776	-.0857	-.1052	-.1237	-.1411	-.1576	-.1733	-.1882	-.2023
-.300	-.0768	-.0811	-.0853	-.0895	-.0976	-.1172	-.1357	-.1532	-.1697	-.1854	-.2003	-.2145
-.400	-.0998	-.1041	-.1084	-.1125	-.1208	-.1404	-.1590	-.1765	-.1932	-.2089	-.2239	-.2382
-.500	-.1216	-.1259	-.1302	-.1344	-.1426	-.1623	-.1810	-.1986	-.2143	-.2312	-.2462	-.2605
-.600	-.1424	-.1468	-.1510	-.1553	-.1635	-.1834	-.2021	-.2198	-.2365	-.2525	-.2676	-.2820
-.700	-.1622	-.1665	-.1708	-.1751	-.1834	-.2033	-.2221	-.2399	-.2567	-.2727	-.2879	-.3023
-.800	-.1813	-.1856	-.1899	-.1942	-.2026	-.2226	-.2414	-.2593	-.2762	-.2922	-.3074	-.3220

NATIONAL ADVISORY
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TABLE III - Concluded

VALUES OF $\left(\frac{\rho_2}{\rho_o}\right)^{1/2} - \left(\frac{q_2}{q_o}\right)^{1/2}$ FOR DETERMINING POINT DRAG COEFFICIENT - Concluded

$\left[M_o = 1.00\right]$

K $\frac{\Delta H}{q_o}$	0	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
0.800	0.2971	0.2931	0.2892	0.2854	0.2778	0.2597	0.2426	0.2265	0.2112	0.1966	0.1828	-0.1696
.700	.2454	.2414	.2375	.2337	.2261	.2078	.1906	.1744	.1589	.1443	.1303	.1171
.600	.1999	.1959	.1920	.1880	.1804	.1620	.1447	.1284	.1128	.0981	.0840	.0706
.500	.1590	.1550	.1510	.1471	.1394	.1209	.1034	.0870	.0713	.0565	.0423	.0289
.400	.1219	.1178	.1139	.1099	.1022	.0835	.0660	.0494	.0337	.0187	.0045	-.0090
.300	.0880	.0839	.0798	.0759	.0681	.0494	.0317	.0150	-.0008	-.0159	-.0302	-.0438
.250	.0719	.0677	.0637	.0597	.0519	.0331	.0154	-.0013	-.0172	-.0323	-.0466	-.0603
.200	.0565	.0524	.0484	.0444	.0365	.0177	-.0001	-.0168	-.0328	-.0479	-.0623	-.0760
.150	.0415	.0374	.0333	.0293	.0215	.0026	-.0153	-.0321	-.0481	-.0632	-.0776	-.0914
.100	.0273	.0232	.0191	.0151	.0072	-.0117	-.0296	-.0465	-.0625	-.0777	-.0921	-.1060
.075	.0203	.0162	.0121	.0081	.0002	-.0188	-.0367	-.0536	-.0696	-.0849	-.0993	-.1131
.050	.0134	.0093	.0052	.0012	-.0067	-.0257	-.0436	-.0605	-.0766	-.0919	-.1063	-.1202
.025	.0066	.0025	-.0015	-.0056	-.0135	-.0325	-.0505	-.0674	-.0835	-.0987	-.1133	-.1271
0	0	-.0042	-.0082	-.0123	-.0202	-.0392	-.0572	-.0742	-.0903	-.1056	-.1201	-.1340
-.025	-.0065	-.0106	-.0147	-.0188	-.0267	-.0458	-.0637	-.0808	-.0969	-.1122	-.1267	-.1406
-.050	-.0130	-.0172	-.0212	-.0252	-.0333	-.0523	-.0703	-.0874	-.1035	-.1188	-.1334	-.1473
-.075	-.0194	-.0236	-.0277	-.0317	-.0397	-.0588	-.0768	-.0938	-.1100	-.1254	-.1400	-.1539
-.100	-.0256	-.0298	-.0339	-.0379	-.0459	-.0650	-.0831	-.1002	-.1164	-.1317	-.1463	-.1603
-.150	-.0376	-.0418	-.0459	-.0500	-.0580	-.0772	-.0952	-.1123	-.1286	-.1440	-.1587	-.1726
-.200	-.0498	-.0540	-.0581	-.0622	-.0702	-.0894	-.1075	-.1247	-.1410	-.1564	-.1711	-.1851
-.250	-.0614	-.0655	-.0697	-.0738	-.0818	-.1012	-.1193	-.1365	-.1528	-.1683	-.1830	-.1971
-.300	-.0726	-.0768	-.0809	-.0850	-.0931	-.1124	-.1306	-.1479	-.1642	-.1797	-.1945	-.2086
-.400	-.0942	-.0984	-.1026	-.1067	-.1148	-.1342	-.1525	-.1699	-.1863	-.2018	-.2167	-.2308
-.500	-.1148	-.1194	-.1232	-.1273	-.1359	-.1550	-.1734	-.1908	-.2073	-.2229	-.2379	-.2520
-.600	-.1344	-.1386	-.1428	-.1470	-.1551	-.1747	-.1932	-.2107	-.2273	-.2430	-.2580	-.2722
-.700	-.1531	-.1573	-.1616	-.1658	-.1739	-.1936	-.2122	-.2297	-.2463	-.2622	-.2772	-.2915
-.800	-.1711	-.1754	-.1796	-.1838	-.1920	-.2118	-.2304	-.2481	-.2648	-.2806	-.2957	-.3101

NATIONAL ADVISORY
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TABLE IV

F_c AS A FUNCTION OF $\frac{H - p}{p}$

$\frac{H - p}{p}$	F_c	$\frac{H - p}{p}$	F_c	$\frac{H - p}{p}$	F_c	$\frac{H - p}{p}$	F_c	$\frac{H - p}{p}$	F_c	$\frac{H - p}{p}$	F_c	$\frac{H - p}{p}$	F_c
0.01	1.00352	0.37	1.12311	0.74	1.23301	1.10	1.33103	1.46	1.42230	1.81	1.50601	2.15	1.58344
.02	1.00706	.38	1.12636	.75	1.23573	1.11	1.33366	1.47	1.42478	1.82	1.50833	2.16	1.58560
.03	1.01064	.39	1.12945	.76	1.23865	1.12	1.33627	1.48	1.42721	1.83	1.51061	2.17	1.58787
.04	1.01418	.40	1.13256	.77	1.24138	1.13	1.33885	1.49	1.42964	1.84	1.51299	2.18	1.59008
.05	1.01779	.41	1.13555	.78	1.24423	1.14	1.34159	1.50	1.43209	1.85	1.51535	2.19	1.59229
.06	1.02081	.42	1.13862	.79	1.24696	1.15	1.34407	1.51	1.43452	1.86	1.51763	2.20	1.59448
.07	1.02456	.43	1.14175	.80	1.25005	1.16	1.34665	1.52	1.43697	1.87	1.51997	2.21	1.59675
.08	1.02832	.44	1.14489	.81	1.25275	1.17	1.34921	1.53	1.43939	1.88	1.52225	2.22	1.59894
.09	1.03166	.45	1.14788	.82	1.25548	1.18	1.35182	1.54	1.44186	1.89	1.52450	2.23	1.60112
.10	1.03512	.46	1.15102	.83	1.25831	1.19	1.35438	1.55	1.44428	1.90	1.52687	2.24	1.60338
.11	1.03839	.47	1.15386	.84	1.26112	1.20	1.35696	1.56	1.44667	1.91	1.52913	2.25	1.60553
.12	1.04189	.48	1.15700	.85	1.26386	1.21	1.35953	1.57	1.44909	1.92	1.53141	2.26	1.60774
.13	1.04528	.49	1.15994	.86	1.26656	1.22	1.36206	1.58	1.45151	1.93	1.53377	2.27	1.60994
.14	1.04872	.50	1.16302	.87	1.26932	1.23	1.36463	1.59	1.45390	1.94	1.53602	2.28	1.61215
.15	1.05199	.51	1.16600	.88	1.27203	1.24	1.36720	1.60	1.45629	1.95	1.53832	2.29	1.61430
.16	1.05536	.52	1.16894	.89	1.27478	1.25	1.36977	1.61	1.45873	1.96	1.54059	2.30	1.61649
.17	1.05855	.53	1.17203	.90	1.27755	1.26	1.37228	1.62	1.46102	1.97	1.54283	2.35	1.62741
.18	1.06188	.54	1.17498	.91	1.28029	1.27	1.37487	1.63	1.46352	1.98	1.54518	2.40	1.63823
.19	1.06528	.55	1.17786	.92	1.28295	1.28	1.37741	1.64	1.46591	1.99	1.54745	2.45	1.64899
.20	1.06855	.56	1.18094	.93	1.28570	1.29	1.37992	1.65	1.46830	2.00	1.54969	2.50	1.65970
.21	1.07195	.57	1.18385	.94	1.28839	1.30	1.38246	1.66	1.46068	2.01	1.55200	2.55	1.67040
.22	1.07518	.58	1.18681	.95	1.29112	1.31	1.38502	1.67	1.47306	2.02	1.55421	2.60	1.68100
.23	1.07836	.59	1.18979	.96	1.29379	1.32	1.38750	1.68	1.47546	2.03	1.55652	2.65	1.69146
.24	1.08177	.60	1.19379	.97	1.29652	1.33	1.38997	1.69	1.47789	2.04	1.55872	2.70	1.70199
.25	1.08501	.61	1.19575	.98	1.29927	1.34	1.39254	1.70	1.48019	2.05	1.56098	2.75	1.71239
.26	1.08826	.62	1.19851	.99	1.30186	1.35	1.39504	1.71	1.48256	2.06	1.56328	2.80	1.72271
.27	1.09143	.63	1.20144	1.00	1.30456	1.36	1.39750	1.72	1.48491	2.07	1.56549	2.85	1.73305
.28	1.09473	.64	1.20437	1.01	1.30723	1.37	1.40000	1.73	1.48728	2.08	1.56778	2.90	1.74339
.29	1.09782	.65	1.20723	1.02	1.30989	1.38	1.40254	1.74	1.48962	2.09	1.57004	2.95	1.75357
.30	1.10112	.66	1.21014	1.03	1.31253	1.39	1.40497	1.75	1.49199	2.10	1.57222	3.00	1.76374
.31	1.10426	.67	1.21301	1.04	1.31519	1.40	1.40749	1.76	1.49431	2.11	1.57453	3.05	1.77380
.32	1.10748	.68	1.21589	1.05	1.31789	1.41	1.40998	1.77	1.49664	2.12	1.57671	3.10	1.78383
.33	1.11048	.69	1.21877	1.06	1.32047	1.42	1.41241	1.78	1.49900	2.13	1.57892	3.15	1.79389
.34	1.11369	.70	1.22162	1.07	1.32316	1.43	1.41489	1.79	1.50132	2.14	1.58120	3.20	1.80389
.35	1.11692	.71	1.22445	1.08	1.32576	1.44	1.41739	1.80	1.50370			3.25	1.81379
.36	1.12010	.72	1.22728	1.09	1.32838	1.45	1.41987						
		.73	1.23013										

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TABLE V

M AS A FUNCTION OF p/H

M	p/H	M	p/H	M	p/H
0	1	0.325	0.9295	0.675	0.7370
.01	.99993	.34	.9231	.68	.7338
.025	.9999	.35	.9188	.69	.7274
.03	.9994	.36	.9143	.70	.7209
.04	.9989	.375	.9075	.71	.7145
.05	.9982	.38	.9052	.72	.7080
.06	.9974	.39	.9002	.725	.7049
.075	.9960	.40	.8956	.74	.6951
.08	.9955	.41	.8907	.75	.6886
.09	.9944	.42	.8857	.76	.6821
.10	.9930	.425	.8832	.775	.6724
.11	.9916	.44	.8755	.78	.6691
.12	.9900	.45	.8702	.79	.6625
.125	.9892	.46	.8650	.80	.6560
.13	.9883	.475	.8570	.81	.6495
.14	.9864	.48	.8541	.82	.6431
.15	.9844	.49	.8486	.825	.6398
.16	.9823	.50	.8430	.84	.6300
.175	.9790	.51	.8374	.85	.6235
.18	.9777	.52	.8316	.86	.6170
.19	.9751	.525	.8288	.875	.6074
.20	.9725	.54	.8200	.88	.6041
.21	.9697	.55	.8141	.89	.5977
.22	.9668	.56	.8082	.90	.5913
.225	.9654	.575	.7993	.91	.5849
.24	.9605	.58	.7962	.92	.5785
.25	.9575	.59	.7901	.925	.5753
.26	.9541	.60	.7840	.94	.5658
.275	.9489	.61	.7779	.95	.5595
.28	.9472	.62	.7716	.96	.5532
.29	.9433	.625	.7686	.975	.5438
.30	.9395	.64	.7591	.98	.5407
.31	.9355	.65	.7528	.99	.5345
.32	.9315	.66	.7465	1.00	.5283

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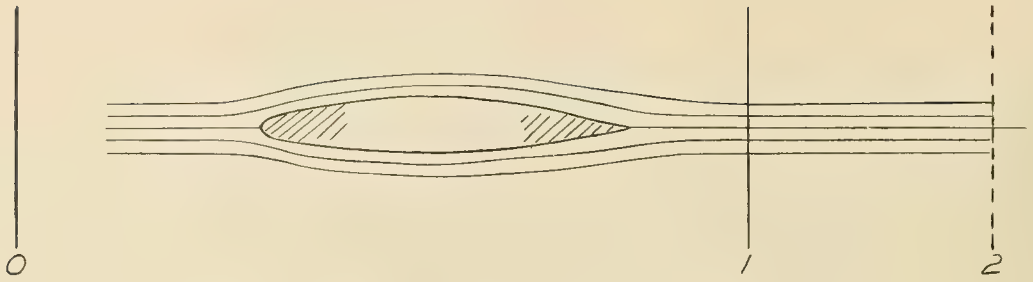
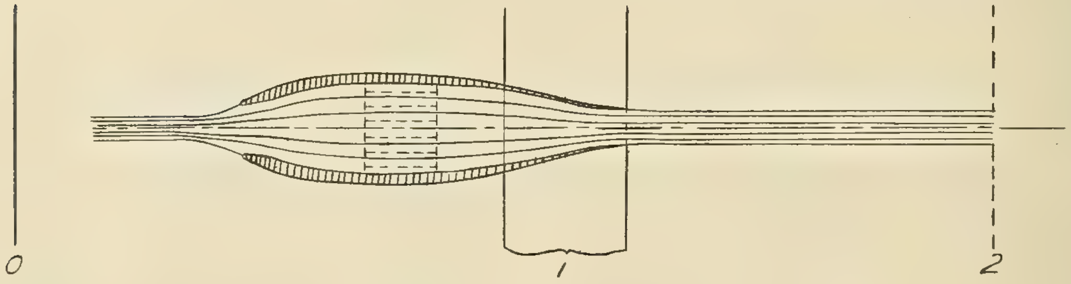


(a) For measurement of profile drag.



(b) For measurement of internal drag or thrust.

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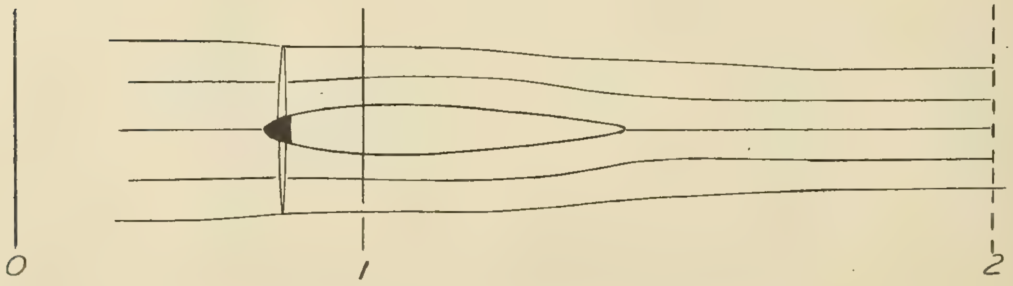
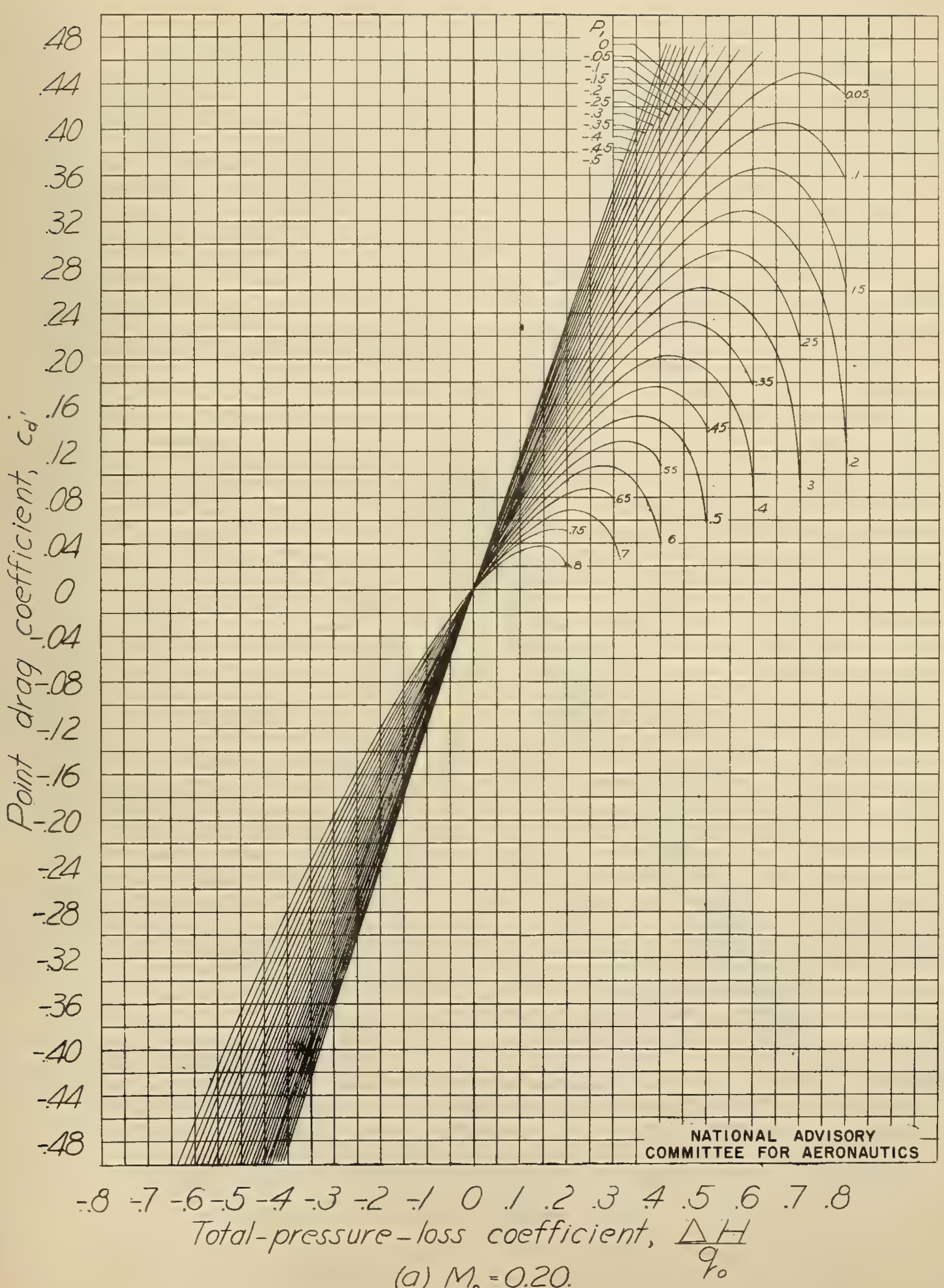


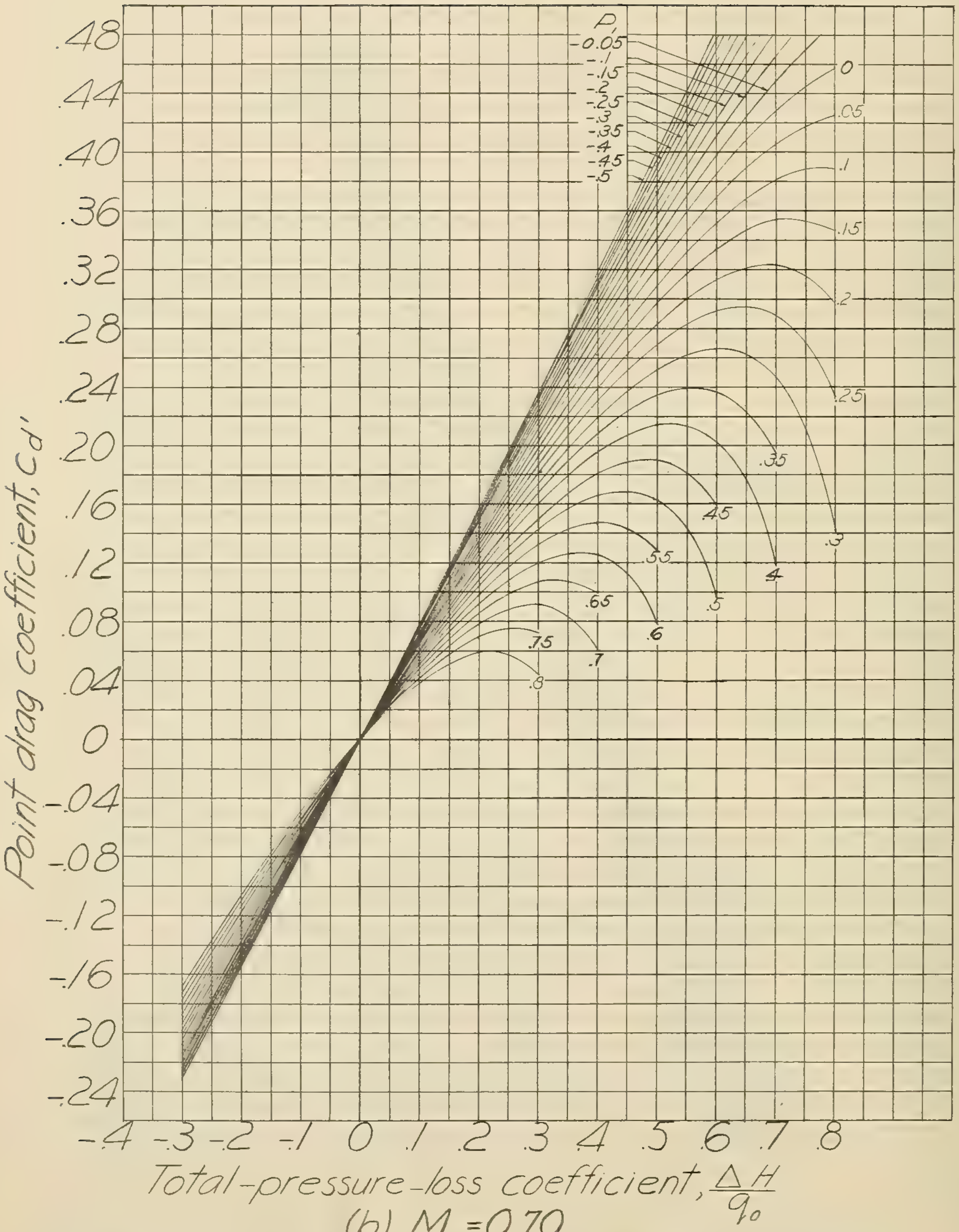
(c) For measurement of propeller thrust.

Figure 1. - Station designations.



(a) $M_o = 0.20$.

Figure 2.-Point drag coefficient from table I for isoenergic flow.



(b) $M_o = 0.70$.

Figure 2.- Concluded.

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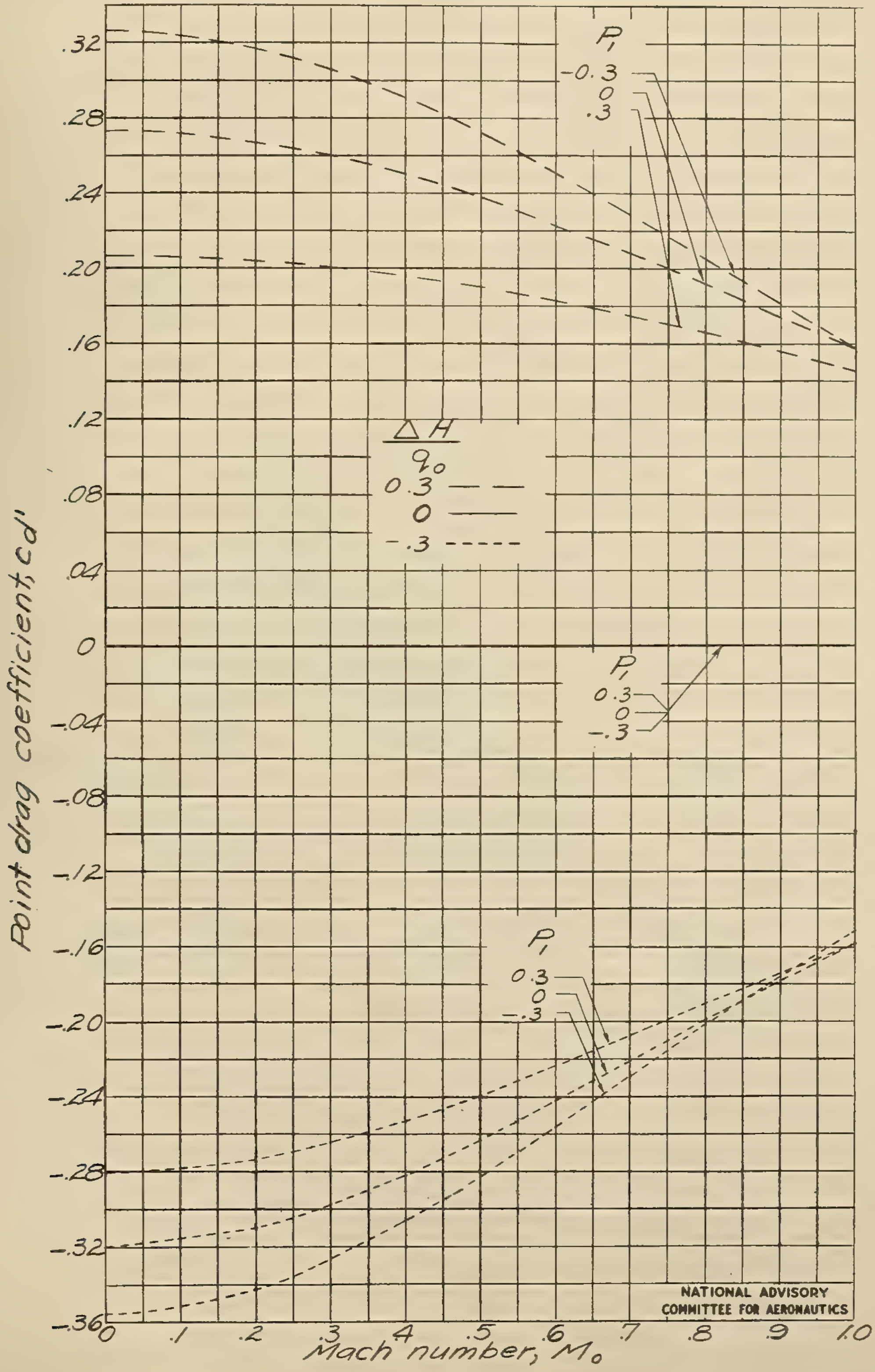
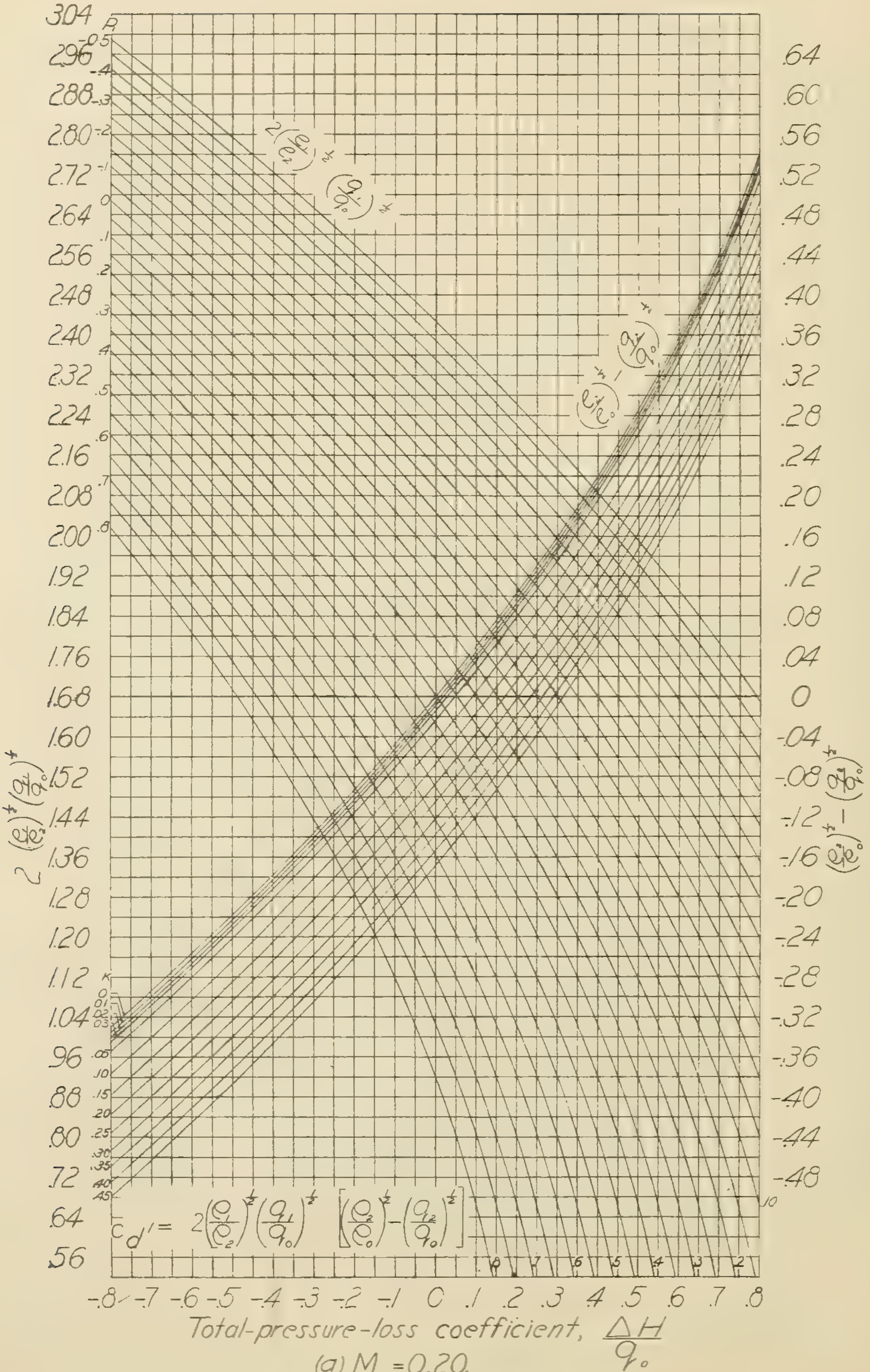


Figure 3.- Variation of point drag coefficient with Mach number for isoenergic flow.



(a) $M_0 = 0.20$.

Figure 4.- Point drag coefficient from table II for flows wherein energy is added.

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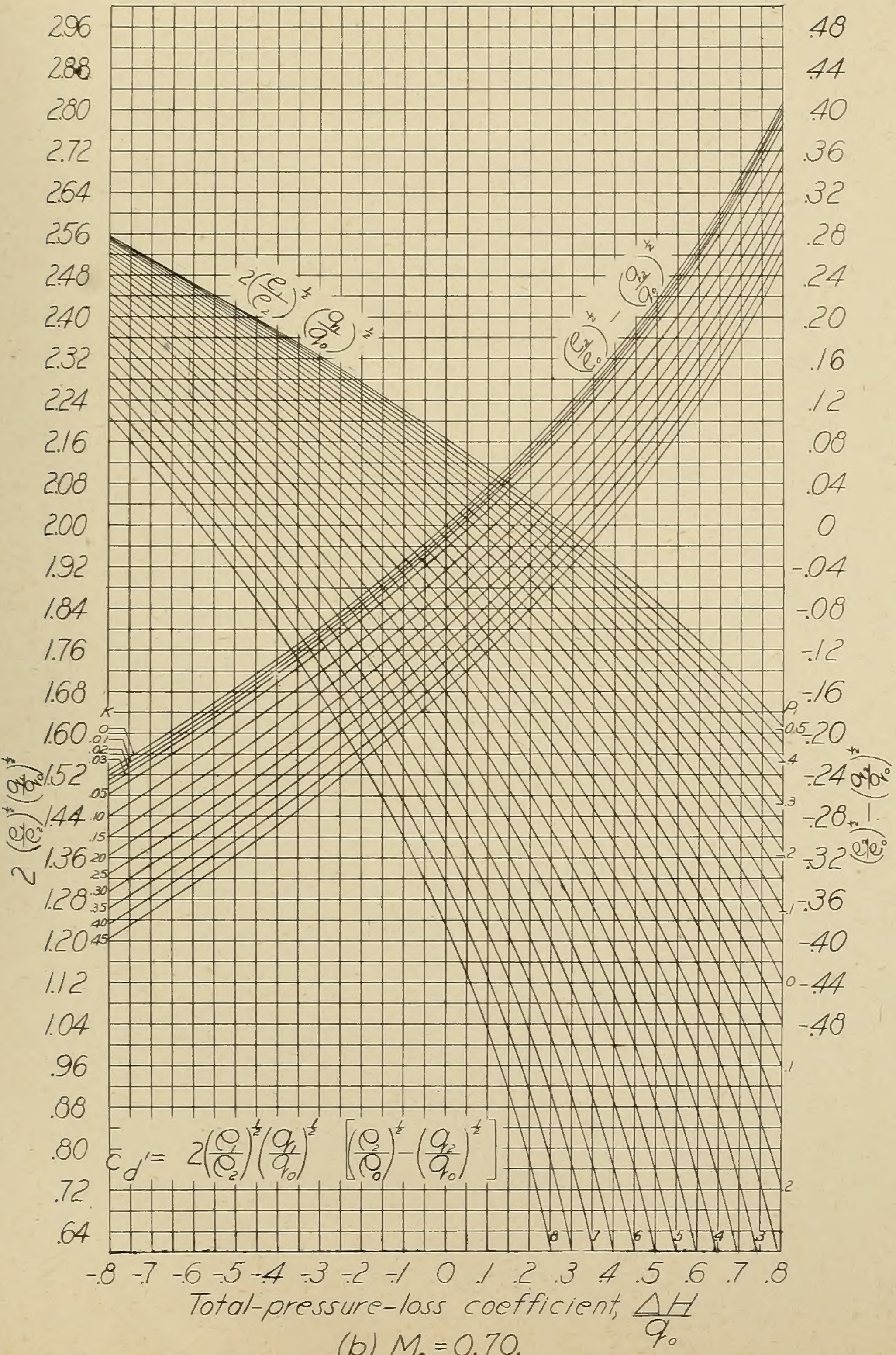

(b) $M_0 = 0.70$.

Figure 4.- Concluded.

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